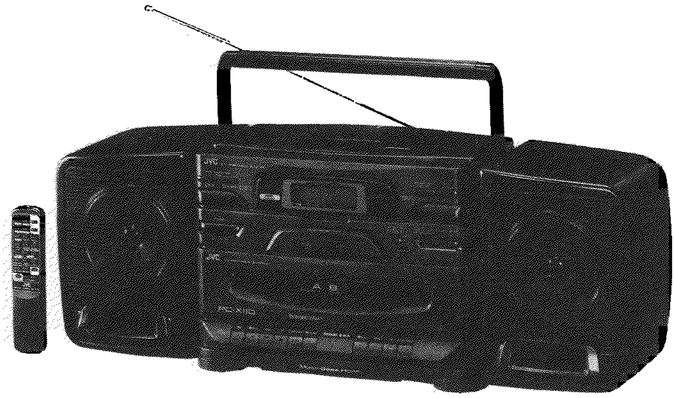
JVC

SERVICE MANUAL

CD PORTABLE SYSTEM

PC – X110 B/E/G/GI/EN



COMPACT
disc
DIGITAL AUDIO

Area Suffix

B	U.K.
E	Continental Europe
G	Germany
GI	Italy
EN	North Europe

Contents

1. Safety Precautions .... Page 2
2. Safety Precaution about PC – X110 3
3. Main Features 5
4. Specifications 5
5. Instructions(Extract) 6
6. Location of Main Parts 24
7. Removal of Main Parts 25
8. Analytic Drawing and Parts List 28
9. Main Adjustment 35
10. Block Diagram 41
11. Wiring Connections 42
12. Standard Schematic Diagram 43
13. Location of P.C. Board Parts 48
14. Electrical Parts List 50
15. Illustration of Packing and Parts List 58
16. Accessories 59

No. 1904
May 1994

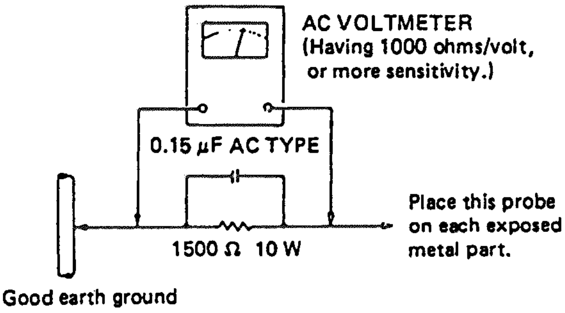
1. Safety Precautions

1. The design this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacture's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety — related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of service manual. Electrical components having such features are identified by (⚠)on the schematic diagram and parts list in the service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of service manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps , tubings, barriers and the like to be separated from live parts, high temperature parts, mpving parts and or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after reassembling.
5. Leakage current check (Electrical shock hazard testing)

   After re — assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this check.

   - Plug the AC line cord directly into the AC outlet. using a"Leakage current tester", measure the leakage current from each exposed metal part of the cabinet, particulary any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exposeed 0.5mA AC(r.m.s.)
   - Alternate check method

     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 ohms 10W resistor paralleled by a 0.15 μ F AC type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC(r.m.s.).This corresponds to 0.5mA


AC VOLTMETER
(Having 1000 ohms/volt, or more sensitivity.)
0.15 μF AC TYPE
1500 Ω 10 W
Place this probe on each exposed metal part.
Good earth ground

Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintaintaind.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

2. Safety Precaution about PC-X110

IMPORTANT FOR LASER PRODUCTS

1. CLASS 1 LASER PRODUCT
2. **DANGER:** Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION:** Do not open the rear cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.
4. **CAUTION:** The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent the emission of radiation when the CD holder is open. It is dangerous to defeat the safety switches.
5. **CAUTION:** Use of controls for adjustments and the performance of procedures other than those specified herein may result in exposure to hazardous radiation.
6. **CAUTION:** The laser is able to function, if safety switches out of function. The laser light is invisible, avoid exposure, do not disassemble the laser unit, but replace the complete unit.

IMPORTANT (In the United Kingdom)

Mains Supply (AC 240 V∿, 50 Hz only)

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

BE SURE to replace the fuse only with an identical approved type, as originally fitted, and to replace the fuse cover.

If nonetheless the mains plug is cut off ensure to remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

IMPORTANT

DO NOT make any connection to the terminal which is marked with the letter E or by the safety earth symbol or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:

Blue to N (Neutral) or Black
Brown to L (Live) or Red

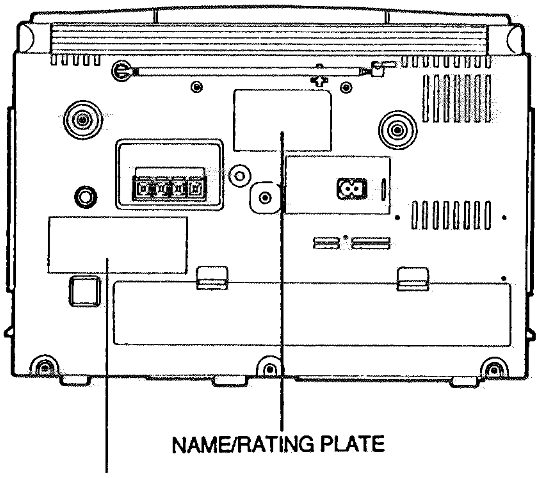
As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

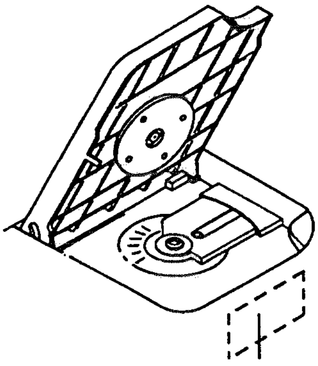
IF IN DOUBT – CONSULT A COMPETENT ELECTRICIAN.

IDENTIFICATION LABEL AND CERTIFICATION LABEL



NAME/RATING PLATE

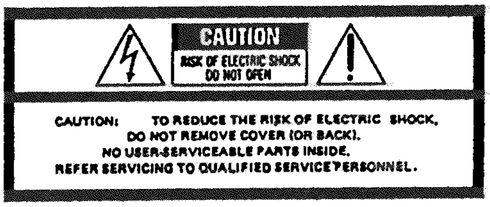
CLASS 1
LASER PRODUCT



ADVARSEL-Der vil udstråles osynlig laserbestråling når apparatet åbnes og afläsningsmekanismen frigores UNDGÅ AT BLIVE UDSET FOR LASERBESTRÅLING.

DANGER-Invisible laser radiation when open and interlock defeated AVOID DIRECT EXPOSURE TO BEAM.

Obs:
Apparaten innehåller laser
Komponent av höger laserklass
än klass 1.

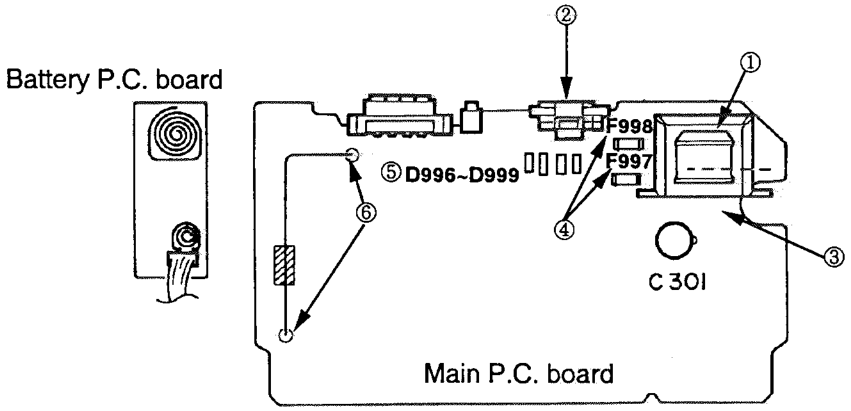


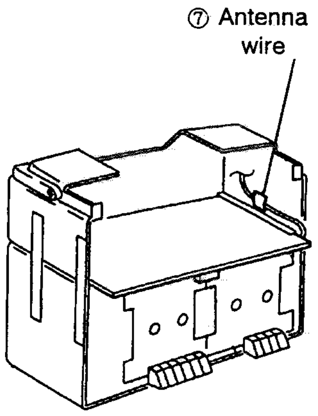
CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.





■ Inportant management points regarding safety(Item demanding special safety precautions)

1. Power transformer marking : VTP57P2 – 12C(B/E/G/GI/EN Version : Parts No.)
   The torque of the screw driver for the poewr transformor must be controlled.
2. Concerning the AC socket, the next marking must be confirmed and to avoid print circuit board pattern damage. The AC socket must not float from print circuit board.
   •Marking ·· HSC1466
3. Concerning the primary terminal and the adjacent secondary terminal on the print circuit board toprovide proper creeping and spatial distance, solder must not protrude from soldering round.
4. Before installation confirm the fuse capacity indication, (▽)and (Ⓢ)marks on the fuse holder.

Version	REF.NO	Capacity and mark	Indication on P.C. board
E/EN	F997	T5A/250V	T5A/250V
E/EN	F998	T5A/250V	T5A/250V
B	F998	T5A/250V	T5A/250V

5. Following parts are controlled as the heated parts. confirm that the flammable parts are lifted up the parts in .
   •Diode:D996~D999, IC: IC101, Transistor:Q901 ,Q921
6. The single wire on the Printed circuit board must be fixded with spacer of bond.
7. Wires must be clamped or sccured at the locations shown in the figure so that the wire do not touch to live parts, moving part , hot part, or sharp edges.

3. Main Features

1. **Multi-function CD player with remote control.**
   - CD player with programmed play of up to 20 tunes/ repeat play/random play/intro play function.
   - 8-cm (3-3/16") "CD singles" capability.
2. **24-key remote control unit (CD and tuner operations)**
   - Remote control controls power on/off switching, volume control, SEA electronic equalizer controls, Multi-Bass Horn on/off switching.
3. **Multi-Bass Horn circuit for low-frequency sound reproduction.**
4. **2-Band digital synthesizer tuner with 30-station (15 FM and 15 AM (MW/LW)) preset capability**
   - Seek/manual tuning
   - Auto preset tuning
   - Preset scan tuning
5. **Synchro-record start for CD recording convenience.**
6. **Double-cassette mechanism (Deck A for recording and playback, Deck B for playback).**
   - Metal and CrO₂ tapes can be played back for superior tone quality.
   - Synchro-start dubbing function (normal/high speed dubbing).
   - Relay playback (from Deck B to Deck A).
7. **Timer/Clock function**
   - Timer on/off with preset volume function.
   - Wake-up volume setting with 25 different levels.
   - Sleep timer can be set for up to 120 minutes.

4. Specifications

Compact disc player section

Type : Compact disc player
Signal detection system : Non-contact optical pickup (semiconductor laser)
Number of channels : 2 channels (stereo)
Frequency response : 20 Hz – 20,000 Hz
Signal-to-noise ratio : 76 dB
Wow & flutter : Less than measurable limit

Radio Section

Frequency ranges : FM 87.5 – 108 MHz
MW 522 – 1,629 kHz
LW 144 – 288 kHz
Antennas : Telescopic antenna for FM
Ferrite core antenna for MW & LW

Tape deck Section

Track system : 4-track 2-channel stereo
Motor : Electronic governor DC motor for capstan
Heads : Deck A; Hard permalloy head for recording/playback, 2 gap permalloy head for erasure
Deck B; Hard permalloy head for playback
Frequency response : 63 – 12,500 Hz (with normal tape/ normal speed)
Wow & flutter : 0.15% (WRMS)
Fast wind time : Approx. 120 sec. (C-60 cassette)

General

Power output : 15.4W (7.7W + 7.7W) at 3 Ω (Max)
10.6W (5.3W + 5.3W) at 3 Ω (10% THD)
Output terminals : SPEAKER x 2
(Matching impedance: 3 Ω – 16 Ω)
PHONES x 1
(Output level: 0 – 12 mW/32 Ω, Matching impedance: 16 Ω – 1 k Ω)
Power supply : AC 240 V, 50/60 Hz (PC-X110B)
AC 230 V, 50/60 Hz (PC-X110GI/EN)
DC 12 V ("R20" cells x 8)
(PC-X110EN only) : Ext. DC 12 V (car battery via optional CA-R120E car adapter)
Power consumption : 28W (with POWER SW ON)
2.8 W (with POWER SW STANDBY)
Dimensions : 683 (W) x 250 (H) x 231 (D) mm including knobs
Weight : Approx. 7.8 kg with batteries
Approx. 6.9 kg without batteries
Accessories provided : AC power cord
Remote control unit (RM-RX110)
Battery "R6" x 2 (for the remote control)

Speaker Section (each unit)

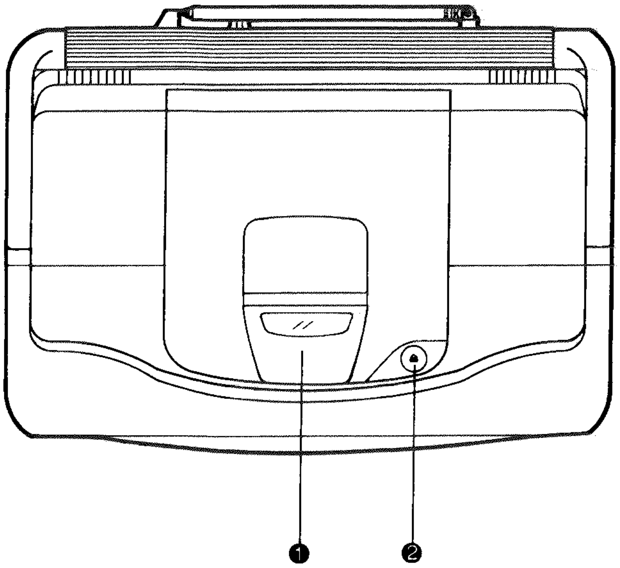
Speakers : 10 cm x 1
Impedance : 3 Ω
Dimensions : 170 (W) x 235 (H) x 202 (D) mm
Weight : Approx. 1.3 kg

Design and specifications are subject to change without notice.

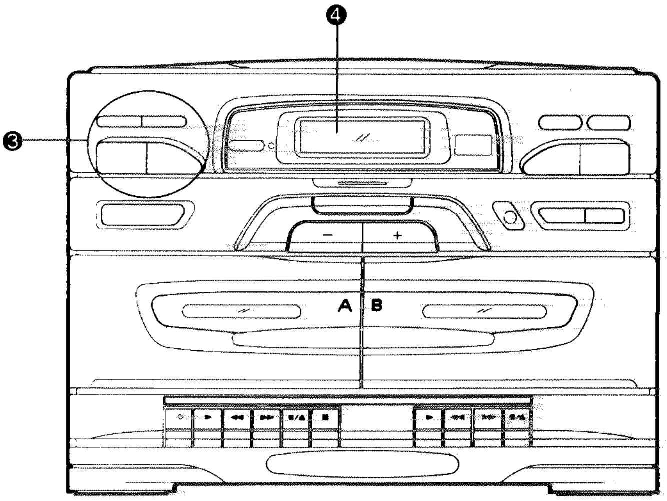
5. Instructions (Extract)

NAMES OF PARTS AND THEIR FUNCTIONS

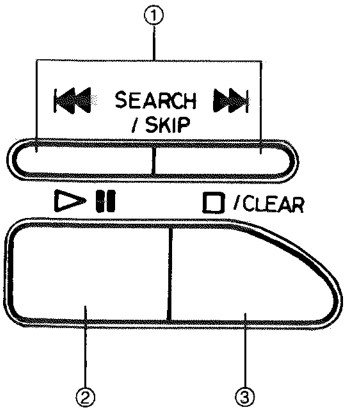
- **Top panel**



- **Front panel**

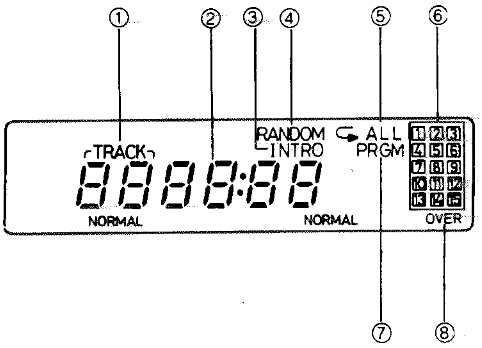


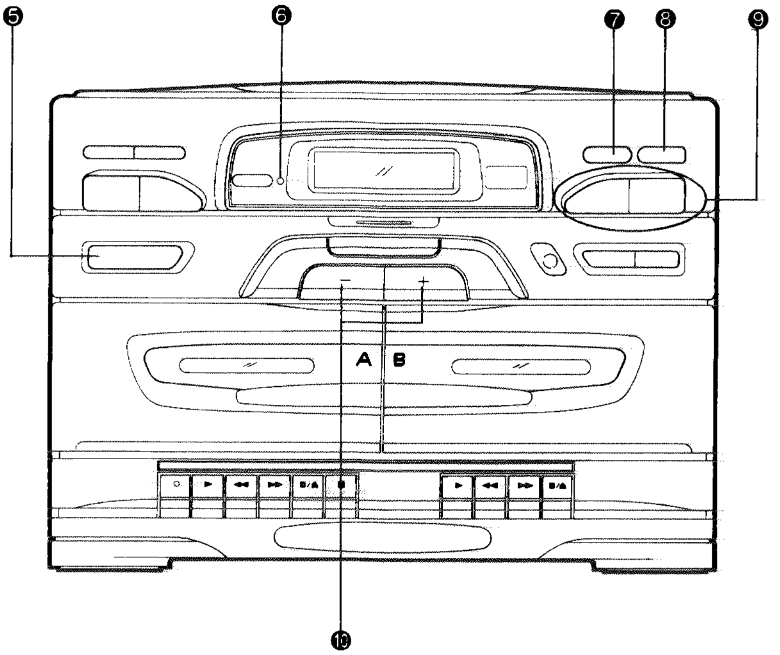
❸

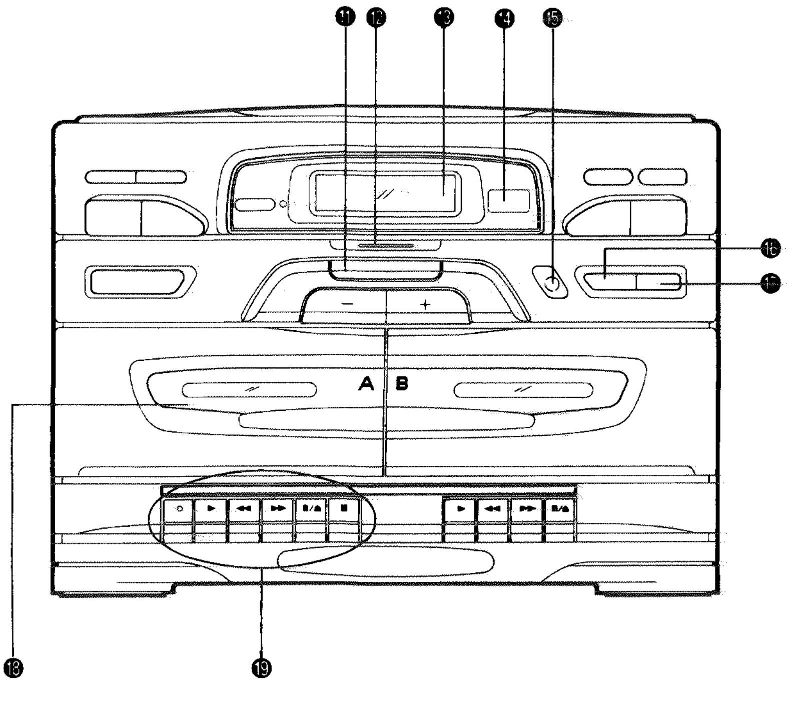


❶ **Disc holder**
❷ **Disc holder open button (⏏)**
❸ **CD operation buttons**
  ① SEARCH/SKIP (⏮/⏭) buttons
  ② Play/Pause (▷II) button
  ③ □/CLEAR button
❹ **Display window (CD player section)**
  ① Function/Track number display
  ② Playback time display
  ③ INTRO scan indicator
  ④ RANDOM playback indicator
  ⑤ Repeat playback indicator (⊂ ALL)
  ⑥ Music calendar display
  ⑦ PRGM mode indicator
  ⑧ OVER indicator

❹

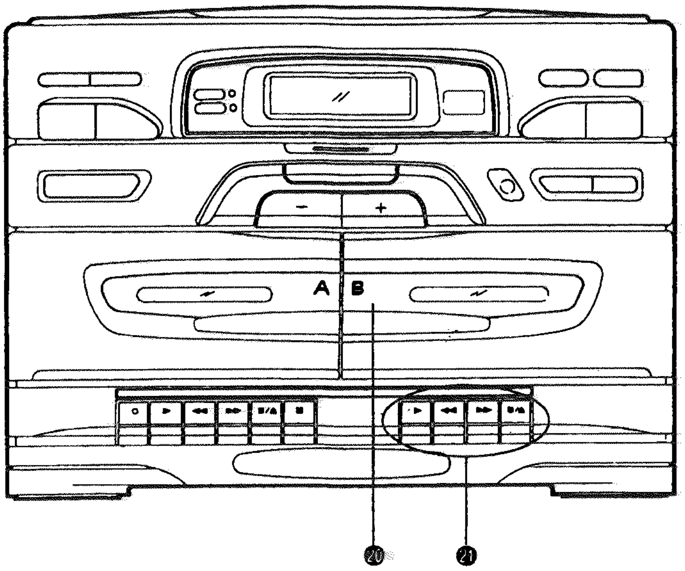






❺ **POWER button**
❻ **POWER STANDBY indicator**
(See page 5)
❼ **PRESET SCAN button**
AUTO PRESET button
❽ **TUNER (BAND/FM MODE) button**
❾ **Tuning (Time adjustment) buttons**
DOWN frequency/Hour or minute
UP frequency/Hour or minute
❿ **VOLUME buttons**
+: Use to increase the volume or tone (SEA).
–: Use to decrease the volume or tone (SEA).
(The level can be changed from VOL 0 to VOL 25.)
⓫ **Multi-Bass Horn button**
on: The Multi-Bass Horn indicator will light.
Set to this position to listen to the Multi-Bass Horn sound.
off: The Multi-Bass Horn indicator goes out.
Set to this position when the Multi-Bass Horn sound is not required.
⓬ **Multi-Bass Horn Indicator**
- Blinks when the VOLUME button is operated.

⓭ **Display window**
(Tuner section)
Band indicator (FM/AM(MW/LW))
Radio frequency display
MONO indicator
STEREO indicator
Preset station display
(Tape deck/amplifier section)
Tape mode display
NORMAL tape indicator
CrO_2/METAL tape indicator
NORMAL speed indicator
HIGH speed indicator
Recording indicator (REC)
(Timer/Clock section)
(See page 44)
⓮ **REMOTE SENSOR section**
⓯ **SEA ELECTRONIC EQ (FREQUENCY) button**
Used to select the electronic equalizer frequency band (100 Hz/1 kHz/10 kHz) to be adjusted with the VOLUME button. (The level setting ranges are from –5 to 5.)
⓰ **TAPE (FOR PLAYBACK) switch**
Set this switch according to the type of tape to be used.
CrO_2•METAL: (playback only)
Set to this position to listen to a chrome (type II) or metal (type IV) tape.
NORMAL:
Set to this position to listen to a normal (type I) tape.
⓱ **DUBBING SPEED switch**
HIGH:
Set to this position when dubbing at high-speed.
NORMAL:
Set to this position when dubbing at normal-speed.
⓲ **Cassette holder (Deck A)**
⓳ **Cassette operation buttons (Deck A)**
○ **REC:**
Press this button with the ► PLAY button to start recording.
► **PLAY:**
Press to play the tape.
◄◄ **REW:**
Press to rewind the tape rapidly.
►► **FF:**
Press to wind the tape forward rapidly.
■/▲ **STOP/EJECT:**
Press to stop the tape. Pressing this button when the tape has stopped opens the cassette holder.
II **PAUSE:**
Press to stop the tape momentarily. Press again to release the pause mode.



⑳ **Cassette holder (Deck B)**

㉑ **Cassette operation buttons (Deck B)**

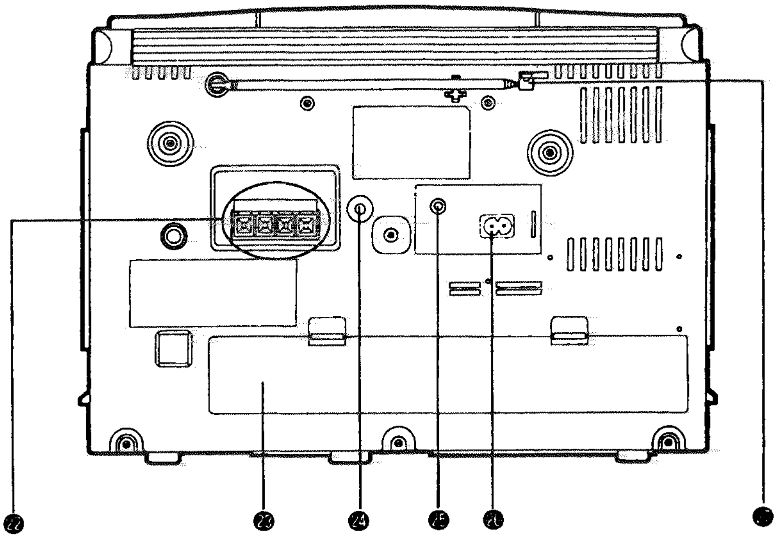
► PLAY:
Press to play the tape.

◄◄ REW:
Press to rewind the tape rapidly.

►► FF:
Press to wind the tape forward rapidly.

■/≜ STOP/EJECT:
Press to stop the tape. Pressing this button when the tape has stopped opens the cassette holder.

Rear panel



㉒ **SPEAKER terminals**
Connect the provided speakers to these terminals.

㉓ **Battery compartment cover**

㉔ **Headphones jack (PHONES) (3.5 mm dia. stereo mini)**
Connect headphones (impedance 16 Ω - 1 kΩ) to this jack. The speakers are automatically switched off when the headphones are connected.

㉕ **DC IN 12V jack (⊖-C-⊕) (PC-X110EN only)**

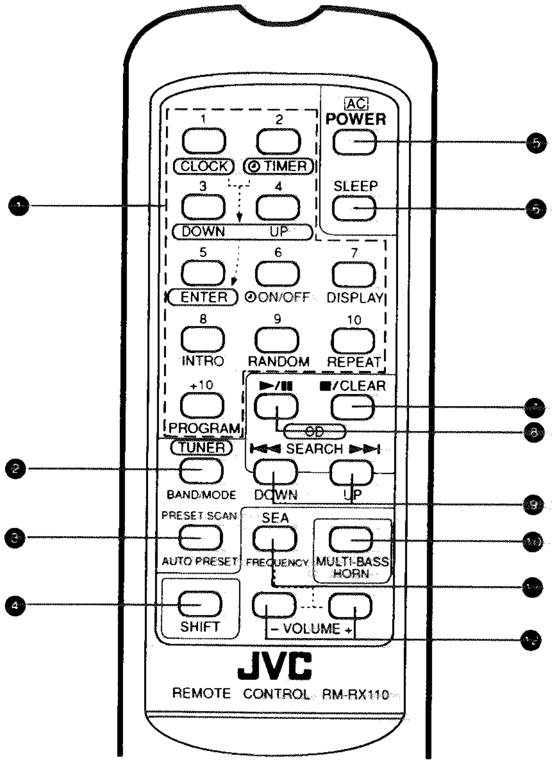
㉖ **AC IN (AC input) jack**

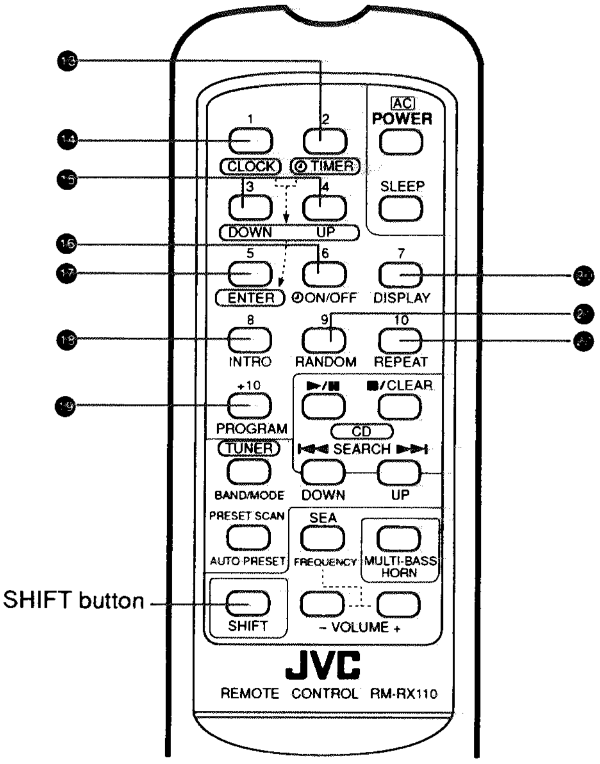
㉗ **Telescopic antenna**

REMOTE CONTROL UNIT

The following operations can be performed using the remote control unit.

- **Check the functions of the operation buttons carefully and operate them correctly.**





❶ **Track (tune) number buttons (No.1—No.10,+10)**
❷ **TUNER•BAND/MODE button**
❸ **PRESET SCAN button**
AUTO PRESET button
❹ **SHIFT button**
❺ **POWER (AC) button**
- When power is supplied from the batteries, even when the button is pressed, the PC-X110 will not be switched on.

❻ **SLEEP button**
❼ **■/CLEAR: Stop/clear button**
❽ **CD ►/❚❚: CD mode/play/pause button**
❾ **CD SEARCH/DOWN and UP buttons (◄◄, ►►)**
- In the CD mode, to scan to the beginning of a tune and to start forward or reverse search.
- In the tuner mode, to tune to broadcasts.

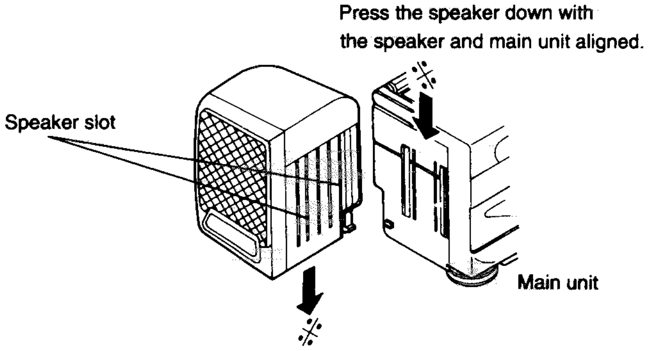
❿ **MULTI-BASS HORN button**
⓫ **SEA (FREQUENCY) button**
⓬ **VOLUME buttons**
+: Use to increase the volume or tone (SEA)
—: Use to decrease the volume or tone (SEA)

Press the following buttons while holding down the SHIFT button ❹.

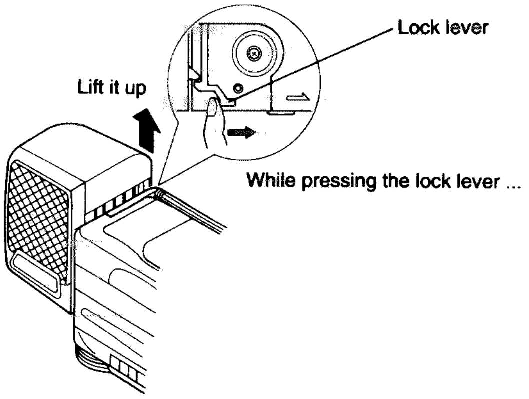
⓭ **TIMER (◷) button**
⓮ **CLOCK button**
⓯ **DOWN/UP buttons**
⓰ **TIMER ON/OFF (◷) button**
⓱ **ENTER button**
⓲ **INTRO button**
⓳ **PROGRAM button**
⓴ **DISPLAY button**
㉑ **RANDOM button**
㉒ **REPEAT button**

ATTACHING/DETACHING THE SPEAKERS

When using the speakers attached to the main unit
Hold with the bottom of the speaker against the top of the main unit and press down on the speaker to attach it.


Press the speaker down with the speaker and main unit aligned.
Speaker slot
Main unit

When using the speakers detached from the main unit
Lift the speaker up to detach from the main unit by pressing the lock lever at the rear bottom of speaker in the direction of the arrow.



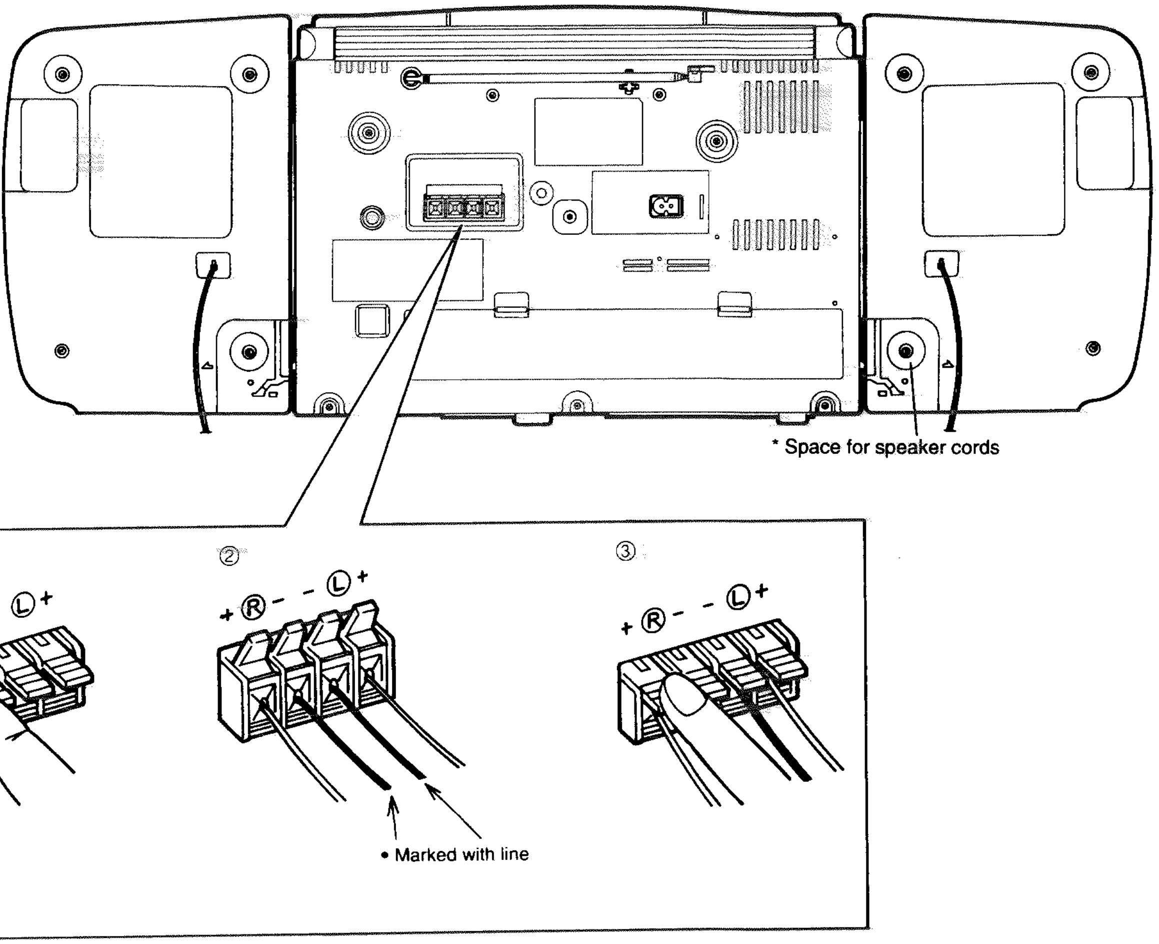
Note:
Since the speakers sound differently according to where they are placed, carefully place them for optimal effect within the length of the provided speaker cords. It is recommended that the left and right speakers be placed symmetrically in relation to the main unit.

CONNECTIONS

- Do not switch the power on until all the connections are completed.

* After connecting the speaker cords, bundle any slack into the space for the speaker cords in the rear panel.

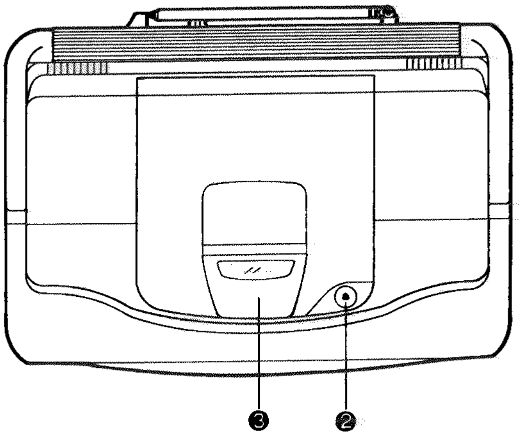
- When connecting the speaker cords, connect the one marked with a line to the "–" terminal first.

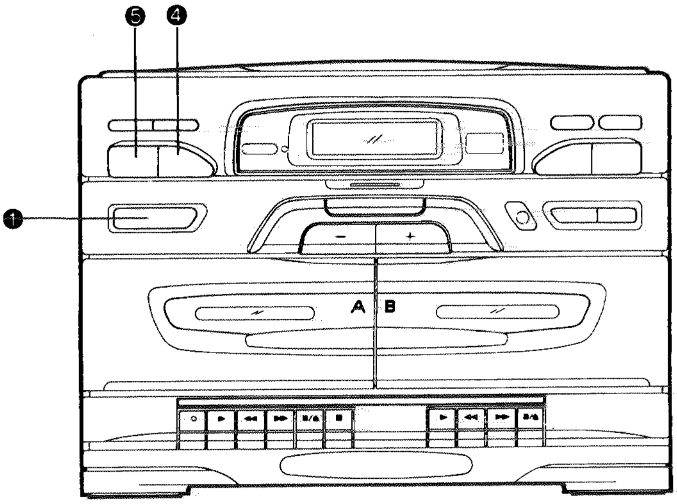


PLAYING COMPACT DISCS

Playing an entire disc ... The following example assumes a compact disc with 12 tunes and a total playing time of 48 minutes 57 seconds.

Operate in the order shown





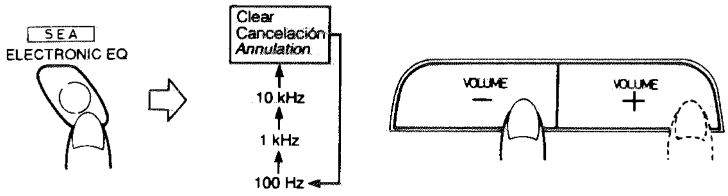
❶ Set the POWER button to on.
❷ Press to open the Disc holder.
❸ Load a disc with the label side facing up and close the Disc holder.
❹ Set to the CD mode.
  - If the PLAY button of deck A or B is pressed, press the STOP/EJECT (■/⏏) button to set to the stop mode.
  - When a CD is first loaded, the total number of tracks (tunes) and total playing time are displayed.

❺ Press to start play.
  - As tunes are played, their track numbers go out one by one.

- 8-cm (3-3/16") compact discs can be used in this unit without an adapter.

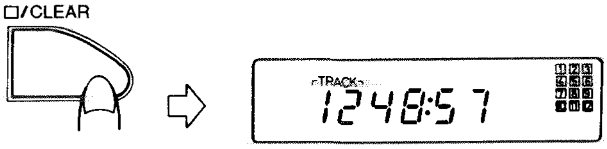
To adjust the SEA (FREQUENCY) electronic equalizer

Press the SEA (FREQUENCY) button to select the electronic equalizer frequency band (100 Hz/1 kHz/10 kHz) to be adjusted. Within about 5 seconds, press the VOLUME button (+/–) to adjust the level within a range of -5 to 5. (Level should be adjusted in each frequency band.)



To stop play

- **To stop in the middle of a disc**
  During playback, press the □/CLEAR button to stop play.



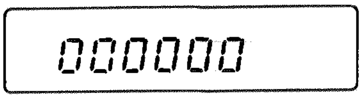
- **To stop a disc temporarily**
  Press the ▷II button to stop play temporarily. When pressed again, play resumes from the point where it was paused.

Caution:

- To change discs, press the □/CLEAR button; check that the disc has stopped rotating completely before unloading it.

Notes:

- The following indication may be shown when a disc is dirty or scratched, or when the disc is loaded upside down.
  In such a case, check the disc and insert again after cleaning the disc or turning it over.



- **Do not use the unit at excessive high or cold temperatures. The recommended temperature range is from 5°C (41°F) to 35°C (95°F).**
- After playback, unload the disc and close the Disc holder.
- If mistracking occurs during play, lower the volume.
- Mistracking may occur if a strong shock is applied to the unit or if it is used in a place subject to vibrations (i.e. in a car travelling on a rough road).

Skip playback

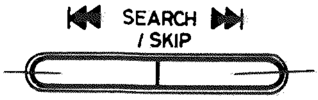
- During playback, it is possible to skip forward to the beginning of the next tune or back to the beginning of the tune being played or the previous tune; when the beginning of the required tune has been located, play starts automatically.

To listen to the next tune ...
Press the ▶▶| button once to skip to the beginning of the next tune.

To listen to the previous tune ...
Press the |◀◀ button to skip to the beginning of the tune being played back and press again to skip to the beginning of the previous tune.

Search playback (to locate the required position on the disc)

- The required position can be located using fast-forward or reverse search while playing a disc.



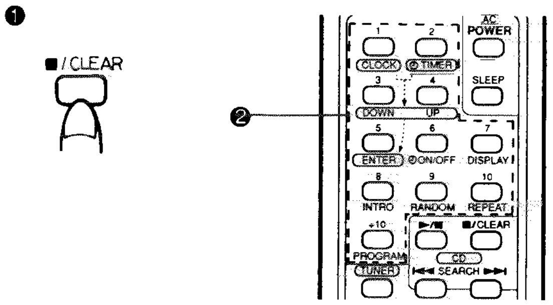
Keep pressing for fast-reverse search

Keep pressing for fast-forward search

- Hold down the button; search play starts slowly and then gradually increases in speed.
- Since low-volume sound (at about one quarter of the normal level) can be heard in the search mode, monitor the sound and release the button when the required position is located.

Direct access playback (using the remote control)

- Pressing any of the track number buttons will start playing from the beginning of the designated tune, without your having to press the CD ▶/II button. (This function cannot be used during programmed play.)



❶ Press the ■/CLEAR button to set to the CD mode.
  - If the PLAY button of the deck A or B is pressed, press the STOP/EJECT (■/▲) button to set to the stop mode.

❷ Designate the required tune using the track number buttons.
  - To designate tune numbers 1 to 10, press the track number button corresponding to the tune (track) number.
  - To designate tune number 11 or higher, press the +10 button the required number of times, then the track number button. (Example: To designate the 20th tune, press the +10 button once, then press track number button 10.)

* +10 button:
Each time this button is pressed, the number increases by 10. First press this button to set the 10's digit, then press the track number button to set the 1's digit.

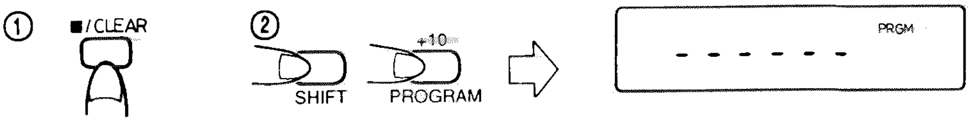
- **To skip to another tune during play**
  When the required track number button is pressed, the display shows the designated track number and play starts from the beginning of the designated tune.

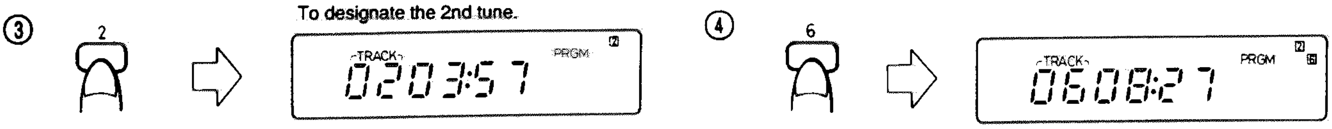
Programmed play (using the remote control)

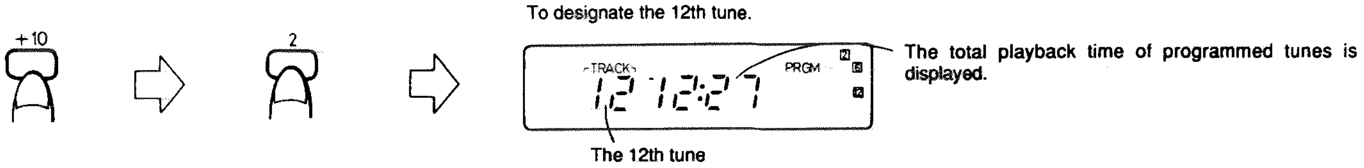
- Up to 20 tunes can be programmed to be played in any required order.
  The total playing time of programmed tunes is displayed (up to 99 minutes, 59 seconds).
  (Example: When programming the 2nd tune to be played first, the 6th tune next, and then the 12th tune, etc.)

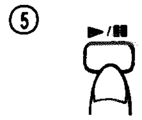
① Press the ■/CLEAR button.
② Press the PROGRAM button while pressing the SHIFT button to set to the programming mode.
③ Press to designate the required track number.
④ Designate the remaining tunes by pressing the track number buttons.
⑤ Press the ►/II button when programming is completed. Programmed playback starts.

To clear the programmed tunes ...
Press the ■/CLEAR button before playing a disc. During programmed playback, press this button twice. When the Disc holder is opened, programmed tunes are cleared automatically.

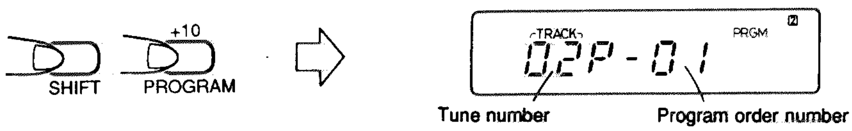





+10
2
To designate the 12th tune.
TRACK
PRGM
12 12:27
The total playback time of programmed tunes is displayed.
The 12th tune



To confirm the details of a program ...
Press the PROGRAM button while pressing the SHIFT botton; the tunes making up the program will be displayed in programmed order.

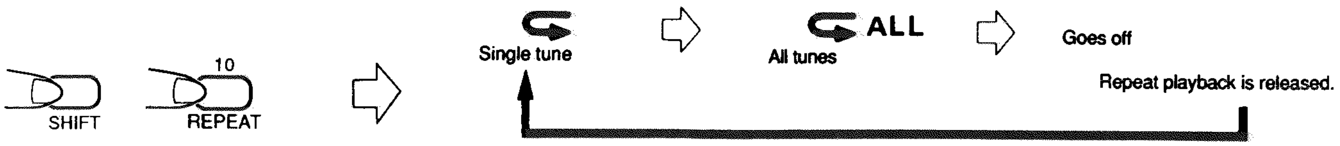


Notes:
1. If the total playing time of the programmed tunes exceeds 99 minutes 59 seconds, the total playing time indication will go out.
2. It is not possible to program more than 20 tunes.
3. When a disc with 16 or more tunes is loaded, the "OVER" indicator will appear.
4. When a track number that is higher than 21 is programmed for a disc which contains more than 21 tunes, the track No. is displayed, however, "--:--" is shown in the total playback time.
5. When performing timer playback in the order of "Programmed play", step ⑤ above is not required.

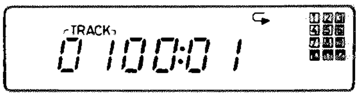
Repeat play (using the remote control)

Press the REPEAT button while pressing the SHIFT button before or during play. A single tune or all the tunes can be repeated.

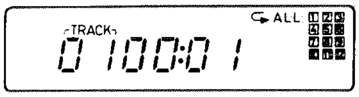
Whether a single tune or all tunes are to be repeated can be specified. Each time the REPEAT button is pressed while pressing the SHIFT botton the mode will change from a single tune (⊂), to all the tunes (⊂ ALL), to the clear mode, in this order.



- **Repeat playback of a single tune (⊂)**
  The tune being played back will be heard repeatedly.

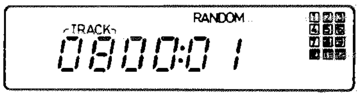


- **Repeat playback of all tunes (⊂ ALL)**
  When playing back an entire disc or programmed tunes, all tunes or the programmed tunes will be heard repeatedly.



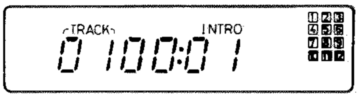
Random playback (using the remote control)

Press the RANDOM button while pressing the SHIFT button, all tunes on a disc are played once, in random order.



INTRO scan operation (using the remote control)

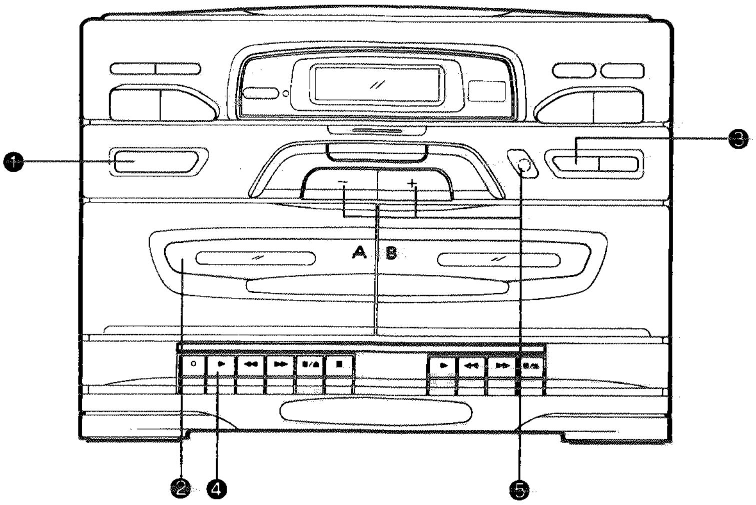
- Simply press the INTRO scan button while pressing the SHIFT button, to play the first 15 seconds of each tune. The operation is released after playing the introductions of all tunes or all programmed tunes.
- If the INTRO scan button is pressed in the middle of a tune while pressing the SHIFT button, the intro scan operation will start from the next tune.
- To release the intro scan mode, press the INTRO scan button again while pressing the SHIFT button, and normal playback (or programmed playback) will resume.



CASSETTE PLAYBACK

(The example shows Deck A)

Operate in the order shown



❶ Set the POWER button to on.
❷ Load a cassette tape in Deck A.
❸ Set the TAPE switch as required.
❹ Press to start playback.
❺ Adjust.

- **Playback in Deck B**
  The previous procedures ❸ through ❹ also apply to Deck B when a cassette is loaded in Deck B. When Decks A and B are simultaneously set to the play mode, only the playback sound of Deck B is heard.

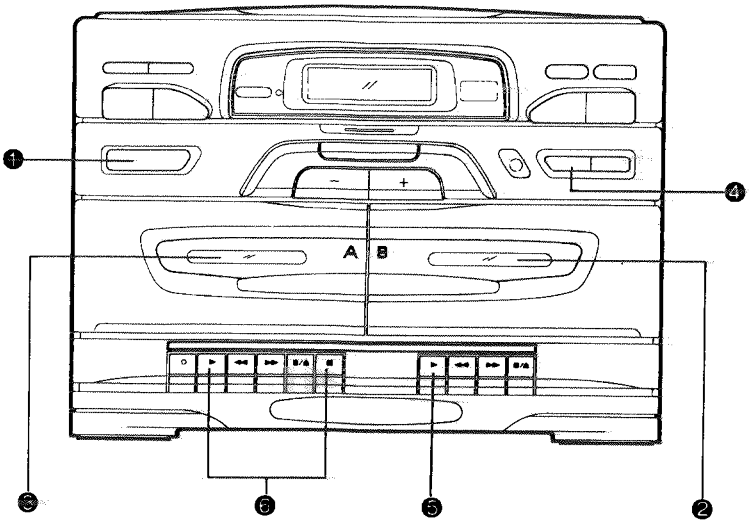
Notes:

1. When the power is turned off while the tape is still running, cassette operation buttons which are depressed do not return to the original positions.
   Press the STOP/EJECT (■/▲) button to stop the tape running before turning off the power.
2. Avoid operating the FF or REW button on the deck during playback of the other deck.

RELAY PLAYBACK

(From Deck B to Deck A)

Operate in the order shown



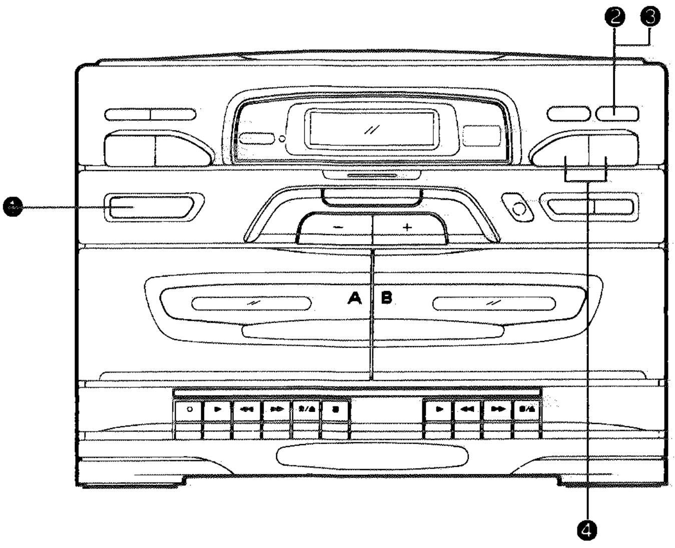
❶ Set the POWER button to on.
❷ Load a cassette tape in Deck B.
❸ Load a cassette tape in Deck A.
❹ Set the TAPE switch as required.
❺ Press the ► PLAY button on Deck B.
❻ Set Deck A to the play-pause mode.

* When Deck B stops, Deck A's pause mode will be released and it will start playback. When Deck A stops automatically, relay playback will be released.

Note:
Use the same type of tape in Decks A and B during this mode.

RADIO RECEPTION

Operate in the order shown



❶ Set the POWER button to on.
❷ Press the TUNER/BAND button; a band and radio frequency will be shown in the display.
  - If the PLAY button of the deck is pressed, press the STOP/EJECT (■/▲) to set to the stop mode.
❸ Select the band/FM mode (FM auto, FM MONO or AM (MW/LW)).
❹ Tune to the required station.

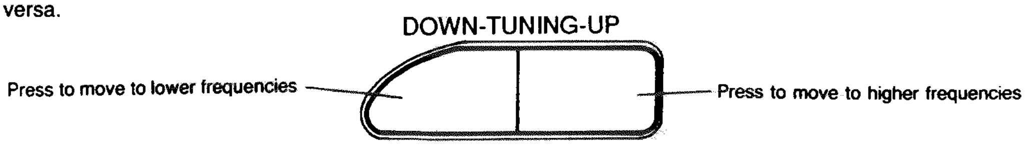
FM MODE button

Auto mode:
Set to this position when listening to or recording an FM stereo broadcast. The STEREO indicator lights when a FM stereo broadcast is received.

MONO:
Set to this position when FM stereo reception is noisy. When another station is tuned to in the MONO mode using the TUNING UP/DOWN or PRESET SCAN/AUTO PRESET button, the unit automatically enters Auto mode.

- **Seek tuning**
  Press the UP or DOWN button for one second or more; the unit enters the seek tuning mode and tunes to higher or lower frequencies, and when the broadcast is received, it stops tuning automatically and the broadcast can be heard.
  In AM operation, the frequency moves continuously from the MW to the LW band and vice versa.

- **Manual tuning**
  Each time the UP or DOWN button is pressed, the unit steps through the current frequency band. Tuning is in steps of 50 kHz for FM and 9 kHz for AM(MW/LW).
  In AM operation, the frequency moves continuously from the MW (522 - 1,629 kHz) to the LW (144 - 288 KHz) band and vice versa.


DOWN-TUNING-UP
Press to move to lower frequencies
Press to move to higher frequencies

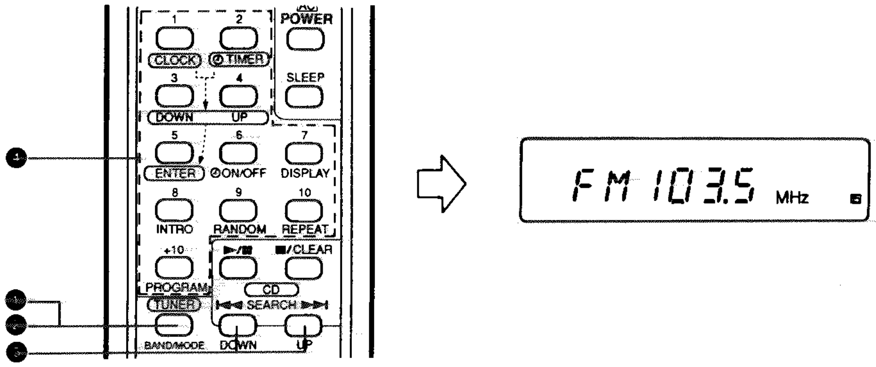
Notes:

- When seek tuning to the required station is not possible because it is broadcasting too weak a signal, press the UP or DOWN button momentarily to perform manual tuning.
- When the power is set to STANDBY, or another mode (TAPE or CD) is selected, the last tuned frequency is stored in memory. When the power is switched on again and TUNER/BAND button is pressed, the same station will be heard.

Presetting stations (using the remote control unit)

15 stations in each band (FM and AM (MW/LW)) can be preset as follows:

- Example (when presetting an FM station broadcasting at 103.5 MHz to preset button "15")



❶ Press the TUNER/BAND button.
❷ Select the FM band using the TUNER/BAND button.
❸ Tune to the required station.
❹ Press preset button "+10", then "5" for more than 2 sec. (When "15" blinks in the preset station display, the station has been preset.)

- Repeat the above procedure for each of the other stations, using a different preset button each time.
- Repeat the above procedure for the AM(MW/LW) band.

- **To change preset stations**
  Perform step ❹ above after tuning to the required station.

Auto preset tuning

This function scans the current band (FM or AM(MW/LW)), detecting frequencies used to broadcast signals, and stores the first 15 frequencies in memory automatically.

- Press the AUTO PRESET button for more than 2 seconds. The frequencies of stations broadcasting signals can be preset automatically in the order of increasing frequency. (15 stations in each band (FM and AM(MW/LW.)))

Notes:

- The previous preset station is erased when a new station is set as the new station's frequency replaces the previous frequency in memory.
- When listening to an AM(MW/LW) broadcast, noise may be heard if the remote control is used.

Preset tuning (using the remote control unit)

- The stations must be preset before this operation can be performed.

① Press the TUNER/BAND button.
② Select the band (FM or AM(MW/LW)) using the TUNER /BAND button.
③ Press the required preset station buttons (No. 1 – No. 10, +10).

- The preset station number and frequency corresponding to the button pressed are shown.

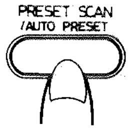
Preset scan button tuning

- This makes it possible to automatically scan preset FM and AM(MW/LW) stations.

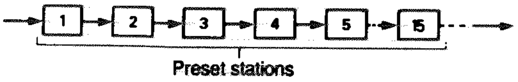
① Press the PRESET SCAN button.
② Scanning is performed in the order of preset station in each frequency band (FM and AM(MW/LW)). Each preset station is heard for approx. 5 seconds.
③ When the required station is heard and its frequency is blinking, press the PRESET SCAN button again.

Note:
Up to 15 broadcast stations in each band can be preset on the PC-X110. If the preset scan operation is performed without all 15 stations having been preset, noise may be heard under certain conditions when non-preset stations are scanned.

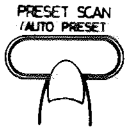
①



②

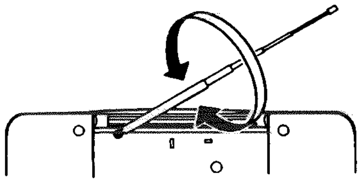


③

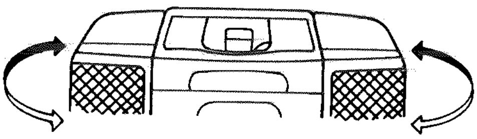


Using the antennas

FM

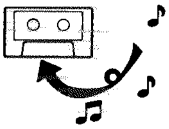


MW/LW



Note:
The built-in ferrite core antenna can pick up interference from television receivers in the neighborhood and thereby disturb AM(MW/LW) reception.

RECORDING



- In recording, the ALC circuit automatically optimizes the recording level; adjustment of the recording level is unnecessary.
- Check that the safety tab on the cassette tape is not broken off.

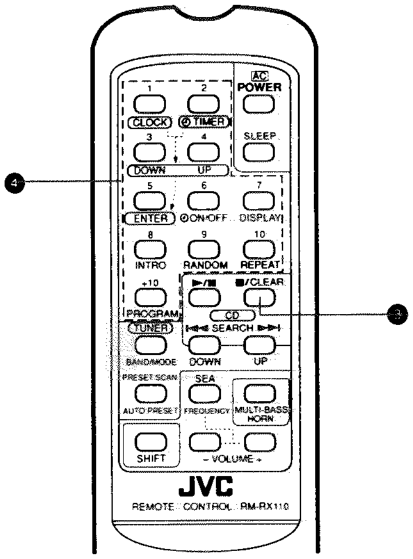
Notes:
1. The recording characteristics of this unit are those of normal tape. Normal tape has different characteristics from CrO_2 and metal tapes.
2. Do not operate any button on deck B during recording.

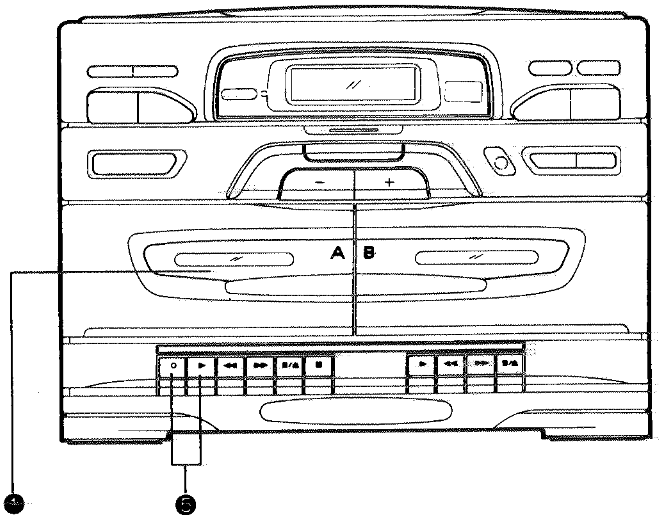
It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast or cable programme and in any literary, dramatic, musical, or artistic work embodied therein.

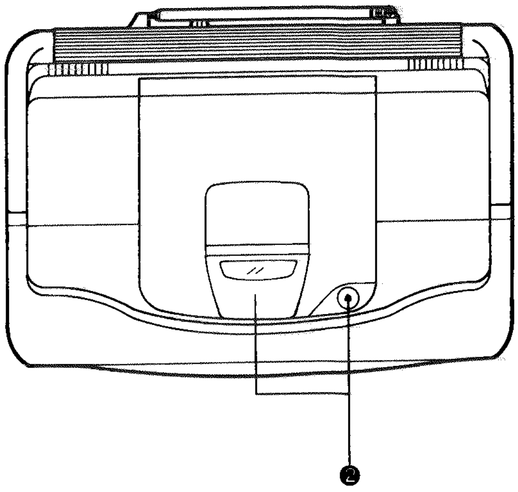
Synchronized recording with the CD player

- In this system, the CD player starts playback when Deck A enters the recording mode.

Operate in the order shown







❶ Load a cassette tape in deck A.
❷ Load a disc and close the Disc holder.
❸ Set the CD mode.
  - When the ► PLAY button of deck is pressed, press the STOP/EJECT (■/▲) button to set to the stop mode and perform this operation.

❹ When programmed playback is required, program the required tunes using the remote control. (See page 27.)
  - Select tunes with a total playing time which does not exceed the tape length.

❺ Press the ○ REC button with the ► PLAY button; synchronized recording will start.

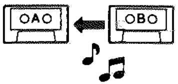
- Non-recorded sections of approx. 4 seconds are automatically left between tunes.
- When the tape reaches the end first, the CD player stops automatically; when the CD player stops first, the tape continues running. In this case, press the ■/▲ STOP/EJECT button to stop the tape.

- **When automatic spacing between tunes is not required ...**
  Perform the following after finishing the previous operation (❶ to ❹).

① Press the ⊳II PLAY/PAUSE button of the CD player twice. The CD player enters the pause mode.
② Press the ○REC and ► PLAY buttons simultaneously. Now, the CD player starts playback simultaneously.

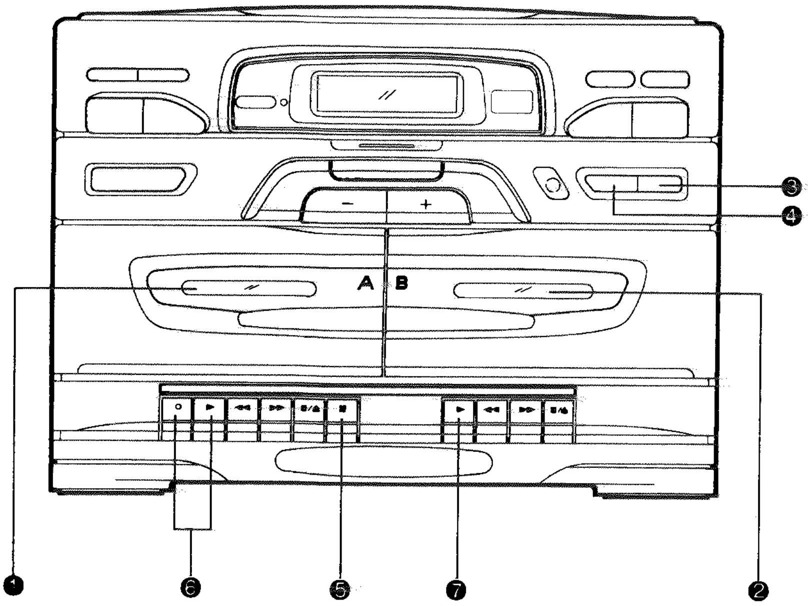
Note:
To record a compact disc, be sure to check that the track (tune) number and playing time are displayed on the display window before pressing the ○REC button and ► PLAY button.

DUBBING (SYNCHRO START DUBBING)



Normal and high-speed dubbing can be done from Deck B to Deck A.

Operate in the order shown



❶ Load a cassette tape in deck A. (Refer to the note on page 38.)
❷ Load a pre-recorded cassette tape in deck B.
- Slightly press the ► PLAY button to set to TAPE mode. (The button should not be locked.)

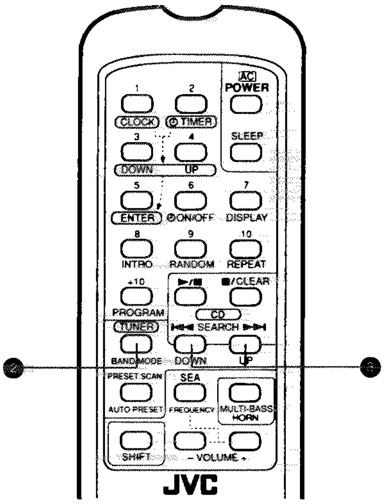
❸ Set to NORMAL SPEED or HIGH SPEED.
❹ Set to correspond to the type of tape in Deck B.
❺ Press the ❚❚ PAUSE button.
❻ Press the ○ REC button with the ► PLAY button. (Record-pause mode.)
❼ Press the ► PLAY button. (Synchronized dubbing will start.)

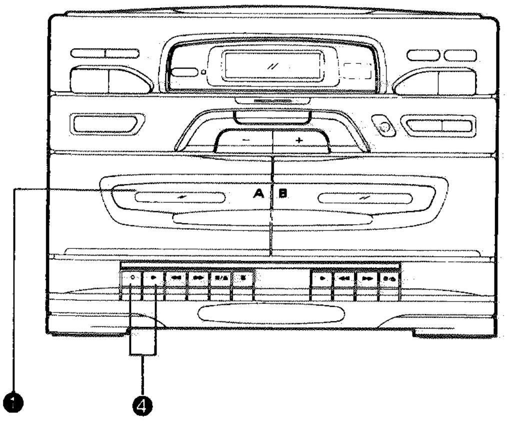
Notes:

1. Television receivers placed close to this unit may cause interference on the recorded signal when this unit is used in the high-speed dubbing mode. If this happens, either turn off the television receiver or use the normal-speed dubbing mode.
2. With Deck A in the record-pause mode, the ❚❚ PAUSE button is released when Deck B enters the stop mode.

Recording from the radio

Operate in the order shown





❶ Load a cassette. (Deck A)
❷ Press the TUNER/BAND button.
❸ Tune to the required station.
❹ Press the ○ REC button with the ► PLAY button.

- To stop recording temporarily, press the ❚❚ PAUSE button. To resume recording, press the ❚❚ PAUSE button again.

Erasing

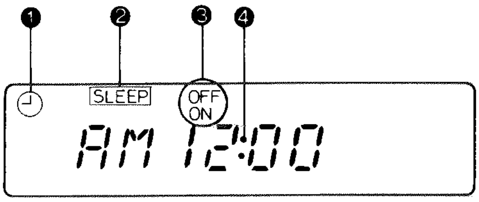
When recording on a pre-recorded tape, the previous recording is automatically erased and only the new material can be heard when the tape is played.

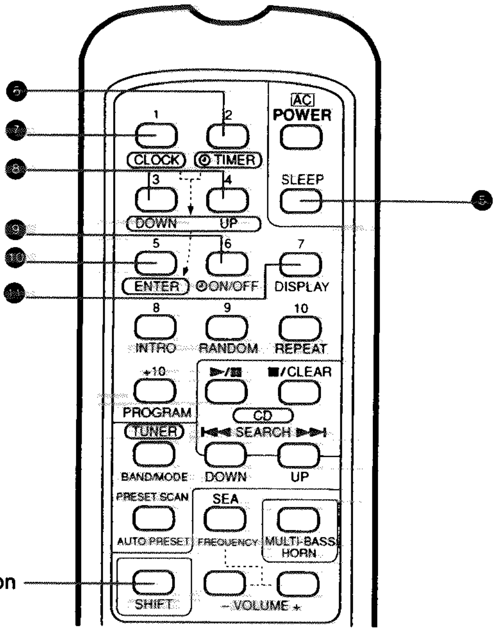
To erase a tape without making a new recording ...
Slightly press the ► PLAY button of the deck to set to the TAPE mode and press the ○ REC and ► PLAY buttons together after pressing the stop button.

CLOCK ADJUSTMENT

(Using the remote control)

Names of parts in the clock/time section, and their functions:





- ❶ **Timer mode indicator**
- ❷ **SLEEP indicator**
- ❸ **Timer indicator (ON/OFF)**
- ❹ **Time display**
- ❺ **SLEEP button**

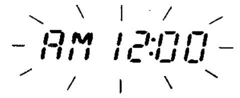
(Press the following buttons while holding down the SHIFT button)

- ❻ **Timer (◷) button**
- ❼ **CLOCK button**
- ❽ **DOWN/UP button**
- ❾ **TIMER ON/OFF (◷) button**
- ❿ **ENTER button**
- ⓫ **DISPLAY button**
  Use to display a current time.

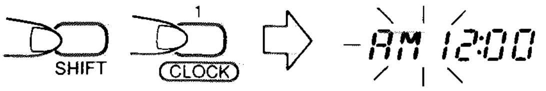
Setting the current time
(when the PC-X110 is used first time)

(Example: to set the clock to PM 1:15)

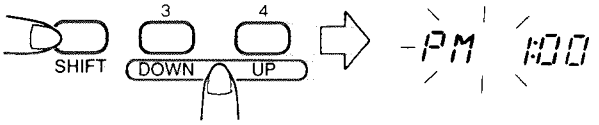
①



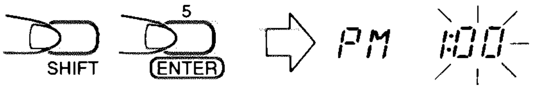
②



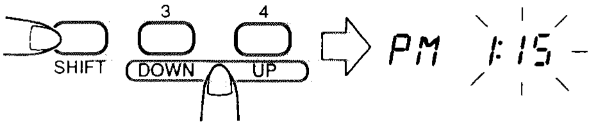
③



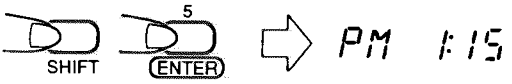
④



⑤



⑥



① Connect the AC power cord; "AM 12:00" will blink in the display.
  - Set the POWER button to on.

② Press the CLOCK button while pressing the SHIFT button; the hour's digits will blink.
③ Set to PM 1:00 by pressing the UP/DOWN buttons while pressing the SHIFT button.
④ Press the ENTER button while pressing the SHIFT button; the minute's digits will blink.
⑤ Set to PM 1:15 by pressing the UP/DOWN buttons while pressing the SHIFT button.
⑥ Press the ENTER button while pressing the SHIFT button; the time will light in the display.

- Each time the hour's digits change from 11 to 12, the display alternates between AM and PM. (12 midnight is indicted as "AM 12:00" and 12 noon is indicated as "PM 12:00")
- To set to the nearest second ...
  Press the ENTER button while pressing the SHIFT button when you hear the time signal from a TV or radio.

Notes:

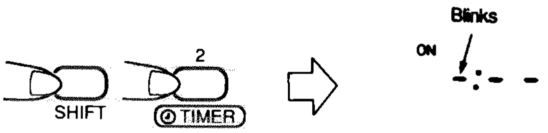
- Before performing timer recording or playback, it is necessary to set the current time.
- Press the DISPLAY button while pressing the SHIFT button to display the current time durning CD play, tape play or radio reception. The current time will be displayed for 10 seconds after which the display returns to the previous mode.

TIMER OPERATIONS

Setting the timer

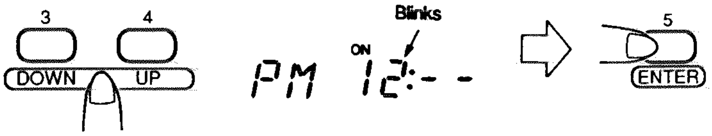
- The current time must be set before the timer can be used.

❶ Set the POWER button to on.
❷ Preset the TIMER (⊙) button while pressing the SHIFT button.

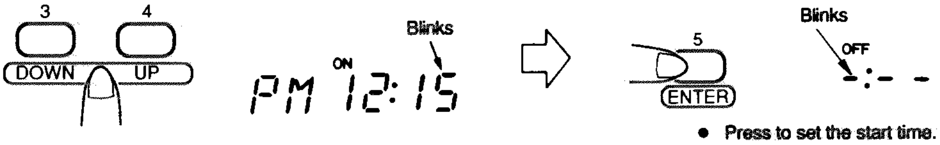


While pressing the SHIFT button.

❸ Set the start time.
(Example: when the timer start time is set to PM 12:15)
① Adjust the hours.



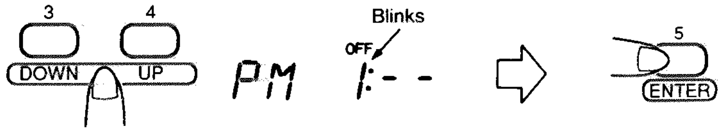
② Adjust the minutes.



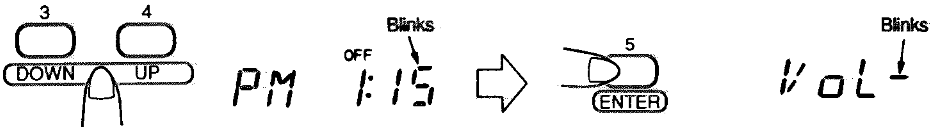
- Press to set the start time.

While pressing the SHIFT button.

❹ Set the stop time.
(Example: when the timer stop time is set to PM 1:15)
① Adjust the hours.



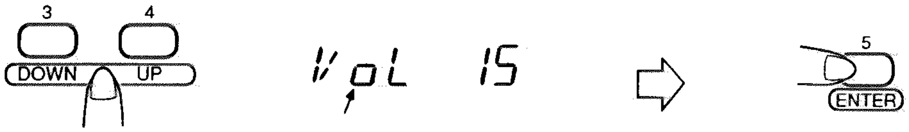
② Adjust the minutes.



- Press to set the timer off time.

While pressing the SHIFT button.

❺ Set the volume.

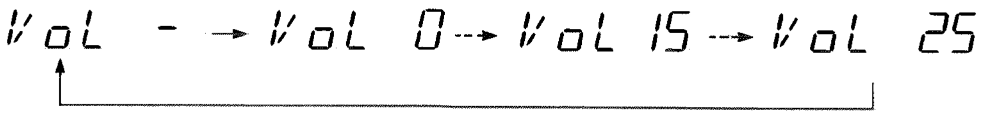


This shows when volume level 15 is selected.

- The selected volume is set.

The playback level is determined by the position of VOLUME control.

When the UP button is used to select the volume.



The volume decreases to zero at the timer start time, and the sound fades in.

- The unit enters the previously engaged mode and timer setting is completed.

- **To check the timer setting**

1. Press the TIMER ON/OFF (◷) button while pressing the SHIFT button.
2. When the previous engaged mode is displayed, timer setting has been completed.

Notes:

- When the timer is set incorrectly or the correct mode is not selected, perform "Setting the timer" from the beginning.
- When the timer is set, "-:--" in the display is replaced by the input digits.
- When the timer stop time is not set, the timer operates for 2 hours and then the unit is switched off. To continue listening after the timer stop time, display the timer stop time, change the hours digits to "-:" using the UP button and press the ENTER button.

Timer recording

- The current time must be set correctly before you set timer recording.
- Make sure that the erase protection tabs of the cassette have not been broken off.

Operations

1. Set the POWER button to on.
2. Load a cassette in Deck A.
   - Insert the cassette with the side to be recorded facing out.
3. Set the timer start and stop times, then set the required volume, in this order. (Refer to "Setting the timer" on page 46.)
   - Set the timer about a minute before the broadcast to be recorded is scheduled to start.
4. Press the TUNER/BAND button.
   - Tune to the station to be recorded. (Refer to page 33.)
5. Set the POWER button to STANDBY.
6. Press the ○ REC and ► PLAY buttons of deck simultaneously.

Note:

Timer recording will start at the preset start time. The power will not be switched off at the timer-off time during tape operation, but will be switched off when the tape ends.

- **To cancel timer operation**

  Set the POWER button to on, then press the TIMER ON/OFF (◷) while pressing the SHIFT button, so that the timer mode indicator (◷) goes out.

If you do this, timer recording will not start at the timer start time.

Note:

Once the timer has been set, the start and stop times, etc., are stored in memory. When timer recording or playback is required at different times, the timer must be set again.

- After setting the timer start and stop times, check that the unit is tuned to the required frequency.

Timer playback

- Timer playback of tapes, broadcasts and CDs is possible.

Operations

1. Set the POWER button to on.
2. Set the timer start and stop times, then set the volume, in this order. (Refer to "Setting the timer" on page 46.)
3. Select the source sound.

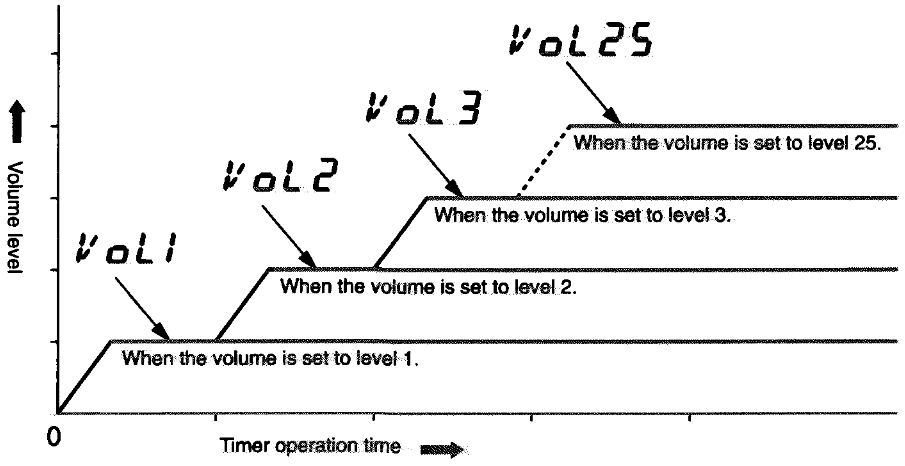
Source sound	Timer mode	Operations
CD play	CD	Load a disc and press the □ STOP/CLEAR button to set the CD mode.
Tape playback	TAPE	Load a cassette tape.
Radio broadcast	TUNER	Press the TUNER/BAND button to set to the tuner mode and tune to the required frequency.

- Timer playback of a CD is possible in programmed order. (See page 27.)
- The volume can be set to 25 different levels.

4. Switch the power off.
   (When performing the timer playback of tape, press the ► PLAY button of the deck.)

- **Timer playback will start at the timer start time and the power will be switched off at the timer stop time. (Tuner or CD)**
  The power will not be switched off at the specified time during tape operation and will be switched off at the tape end.
  The unit remains in the same timer mode even after the power is switched off and the same timer function will be repeated at the same time on the following day.

- Volume setting and fade-in operation



- When the power is switched on, it is possible to fade in the sound from volume level 0 (zero) to the preset volume.

- **To cancel timer operation**
  Set the POWER button to on, then press the TIMER ON/OFF (◷) button while pressing the SHIFT button, so that the timer mode indicator (◷) goes out.

Notes:

- When the volume setting is set to "Vol -" (volume level is not specified), the timer playback volume is set to that of before setting the timer.
- To stop during timer playback, press the POWER button to switch the unit off.
- In the fade-in mode, the volume gradually increases from zero.

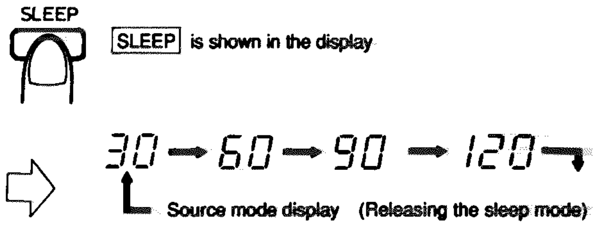
SLEEP OPERATIONS

Use this when you want to fall asleep while listening to a tape, radio broadcast or CD.

① Set to the required source.

	Operations
Radio broadcast	Press the TUNER/BAND button to set to the tuner mode and tune to the required frequency.
CD play	Load a disc and press the ►/❚❚ button to play the disc.
Tape playback	Load a cassette and press the ► PLAY button to play back the tape.

② Press the SLEEP button to set to the sleep time.


SLEEP
SLEEP is shown in the display
30 → 60 → 90 → 120
Source mode display (Releasing the sleep mode)

- Sleep times of 30, 60, 90 or 120 minutes can be set.
  When you release the SLEEP button, the source is displayed after 10 sec.

- The sleep operation will start and the power will be switched off after the specified time. (Tuner & CD modes)
  The power will not be switched off at the specified time during tape operation and will be switched off at the tape end.

- **Checking the sleep time**
  When the SLEEP button is pressed, the remaining sleep time is displayed. If it is pressed again, a new sleep time can be set.

- **To cancel the sleep operation**
  Press the POWER button to switch the power off or press the SLEEP button until the sleep time indicator disappears.

6. Location of Main Parts

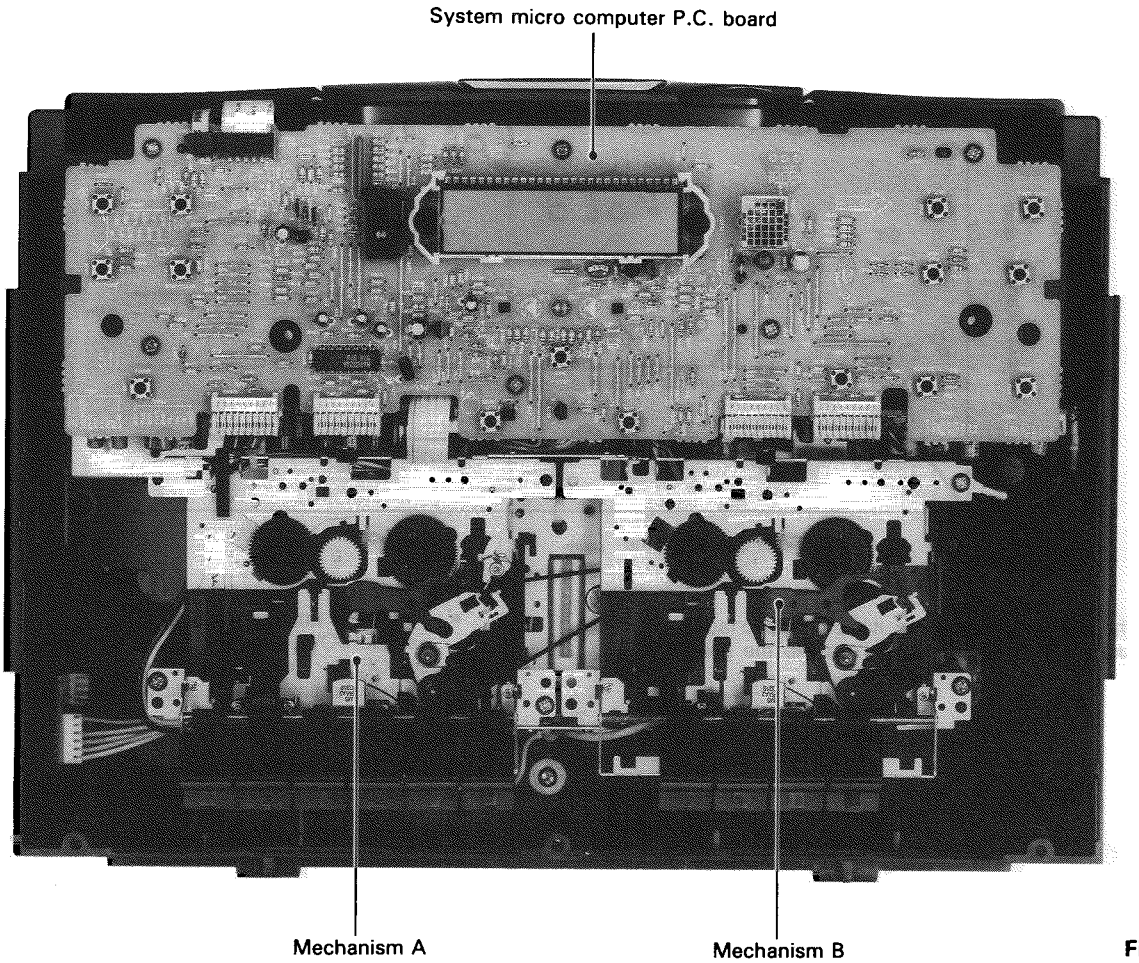


Fig. 6-1

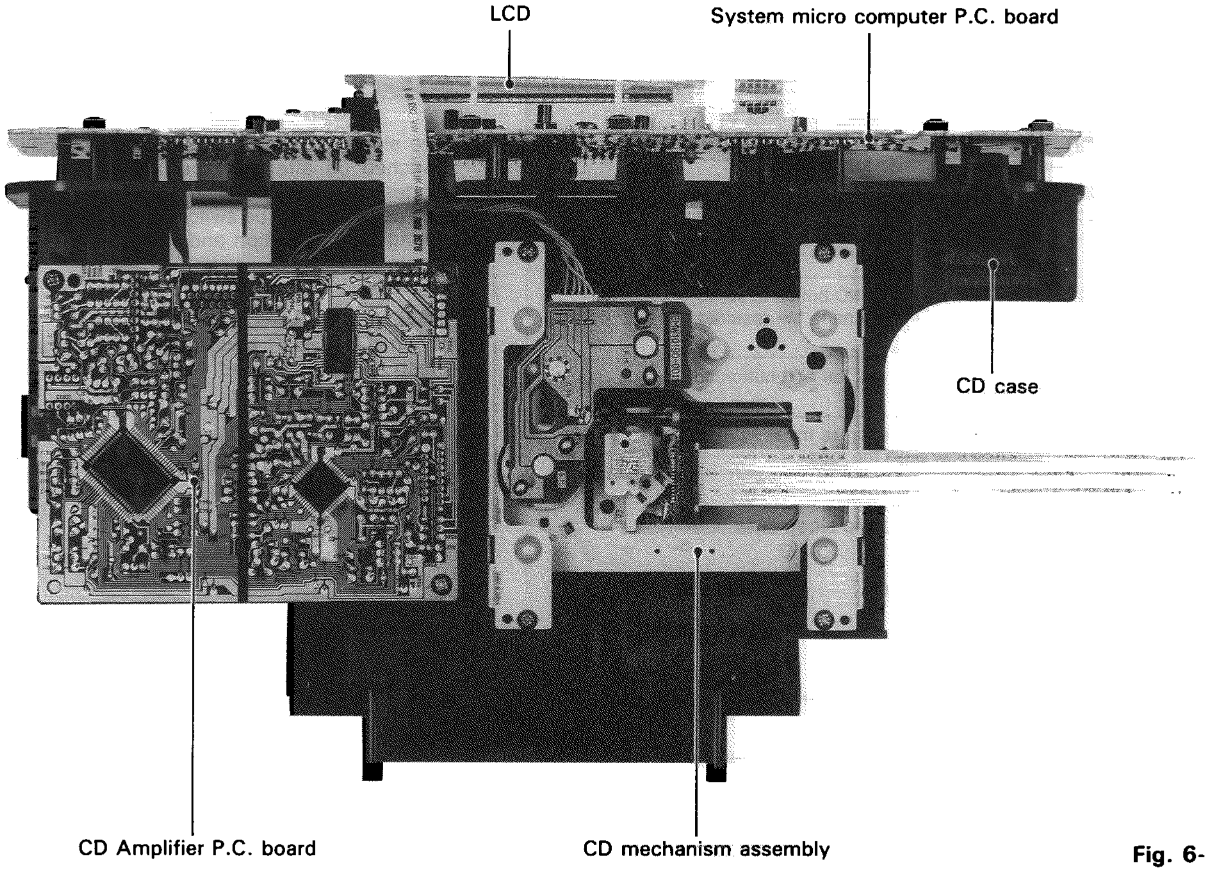


Fig. 6-2

7. Removal of Main Parts

■ Front Cabinet Assembly (refer to Fig. 7-1, 7-2)

1. Remove the six screws ① retaining the rear cabinet assembly of the body.
2. Remove the two screws ② retaining both sides of the front cabinet assembly.
3. Press the eject buttons on both sides A and B and open the cassette door.
4. Turn the front cabinet upward and dismount the front cabinet assembly from the body.

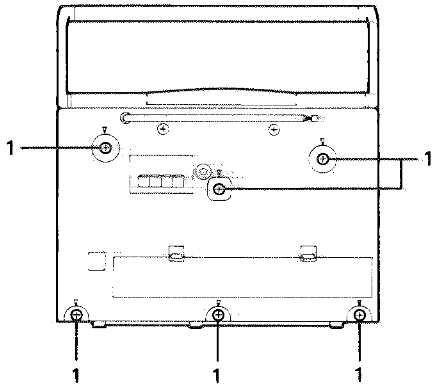
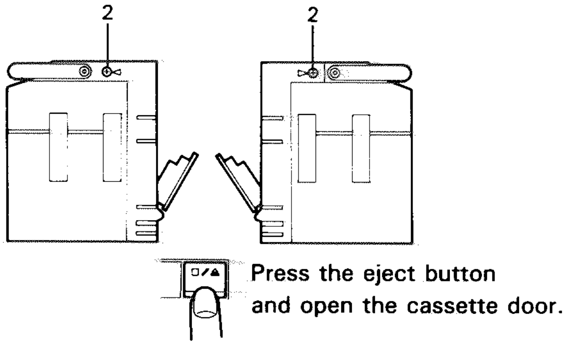


Fig. 7-1



Press the eject button and open the cassette door.

Fig. 7-2

■ CD Player Assembly (refer to Fig. 7-3)

1. Turn the body backward and remove the two screws ③ retaining the CD player assembly.
2. After putting the hand onto the right and left back side of the CD case retaining (accommodating) the system microcomputer P.C. board, draw out and dismount the case to the front side.
   (Then, the connectors CN303, CN304 and CN306 on the main P.C. board, and the connectors CN801, CN802, CN803 and CN804 on the system microcomputer P.C. board will be disconnected).
3. From the connector CN302 on the main amplifier P.C. board, disconnect the 5 PIN parallel wire outgoing from the connector FW501 on the CD amplifier P.C. board.
4. From the four connectors (CN303, CN304, CN305 and CN306) connecting the main amplifier P.C. board and LCD P.C. board, disconnect the connectors (CN801, CN802, CN803 and CN804) on the LCD P.C. board.

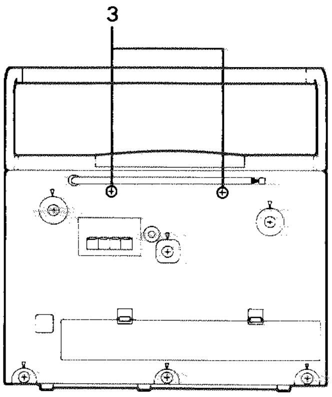


Fig. 7-3

■ System Micro Computer P.C. Board (refer to Fig. 7-4)

1. Remove the six screws ④ retaining the system micro computer P.C. board from the CD player assembly.
2. From the connector CN805 on the system micro computer P.C. board, disconnect the parallel wire outgoing from the connector CN601 on the CD amplifier P.C. board.
3. From the connector CN802 on the system microcomputer P.C. board, disconnect the # 2 PIN paralle wire outgoing from the CD door close switch P.C. board.

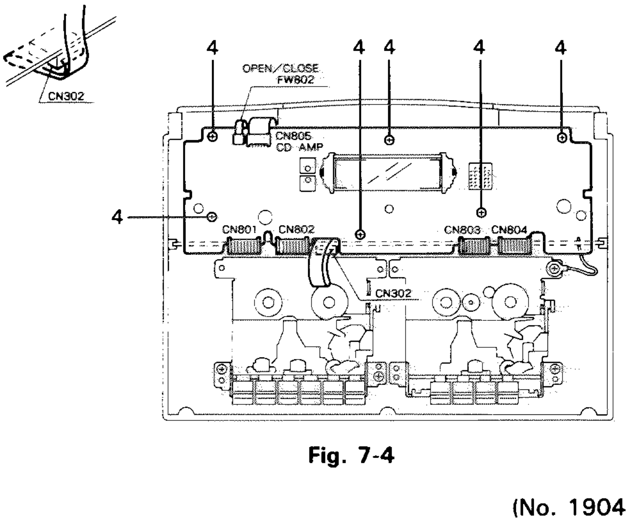


Fig. 7-4

■ CD Amplifier P.C. Board (refer to Fig. 7-5)

1. Remove the three screws ⑤ retaining the CD amplifier P.C. board from the CD player chassis.
2. From the connector P011 on the CD mechanism P.C. board, disconnect the 6 PIN connector outgoing from connector CN502 on the CD amplifier P.C. board.
3. From the connector CN501 on the CD amplifier P.C. board, remove the parallel wire outgoing from the CD pickup P.C. board.
4. Remove the screw ⑦ retaining the CD door close switch P.C. board.

■ CD Mechanism Assembly (refer to Fig. 7-5)

Remove the four screws ⑥ retaining the CD mechanism assembly.

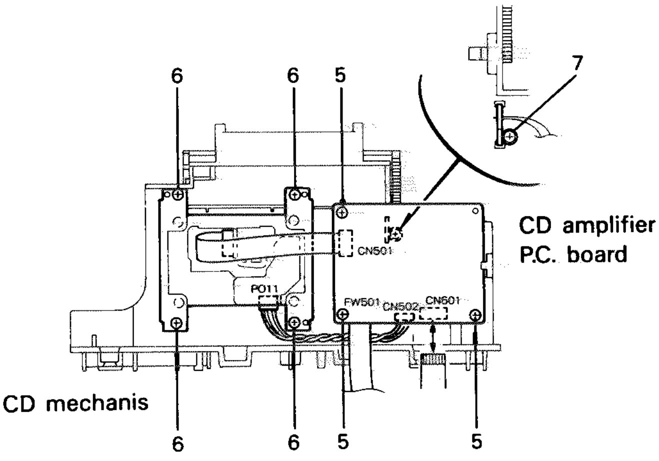


Fig. 7-5

■ Cassette Mechanism Assembly (refer to Fig. 7-6)

1. Remove the four screws ⑧ retaining the cassette mechanism assembly.
2. From the connector CNA31 on the main P.C. board, disconnect the 3 PIN connector outgoing from the replay head of the cassette mechanism B.
3. From the connector CNA32 on the main amplifier P.C. board, disconnect the 2 PIN and 5 PIN connectors outgoing from the deletion, recording and replay heads of the cassette mechanism A.
4. From the connector CNA36 on the main amplifier P.C. board, disconnect the 4 PIN parallel wire outgoing from the drive motor.

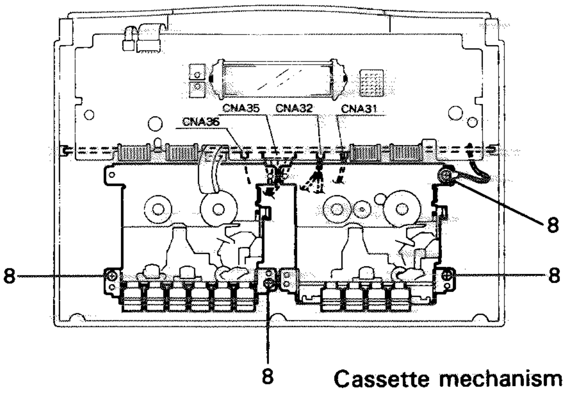


Fig. 7-6

■ Main Amplifier P.C. Board (refer to Fig. 7-7 ~ 7-10)

1. Remove the four screws ⑨, ⑩ retaining the main amplifier P.C. board.
2. From the test point TP1 on the main amplifier P.C. board, pull out the antenna wire outgoing from the rod antenna.

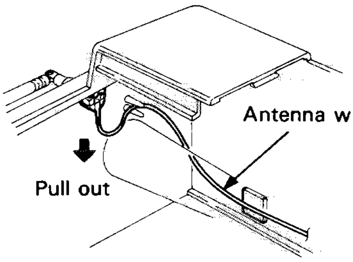


Fig. 7-8

3. Dismount the spacer A retaining the wire outgoing from W999 on the main P.C. board.
4. Remove the screw ⑪ retaining the [+] battery contact P.C. board.
5. After turning back the body, dismount the battery cover. Next, remove the clow B retaining the [–] battery contact P.C. board, and draw it out to the front side (refer to Fig. 7-10).
6. Draw out the [–] and [+] battery contact P.C. boards together at the same time.

■ Head Sink (refer to Fig. 7-11)

1. Remove the three screws ⑫ retaining the IC101 and Q902, Q921 from the heat sink.
2. Remove the heat sink from the main P.C. board.

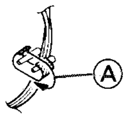


Fig. 7-9

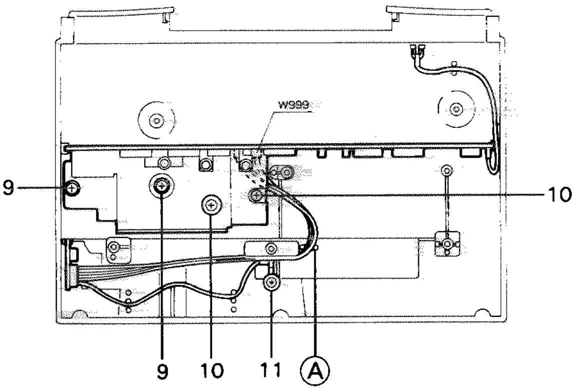


Fig. 7-7

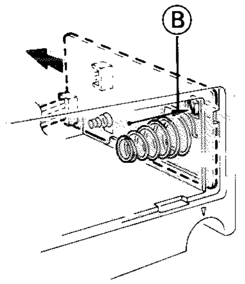


Fig. 7-10

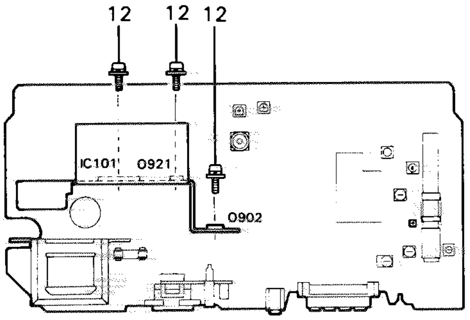
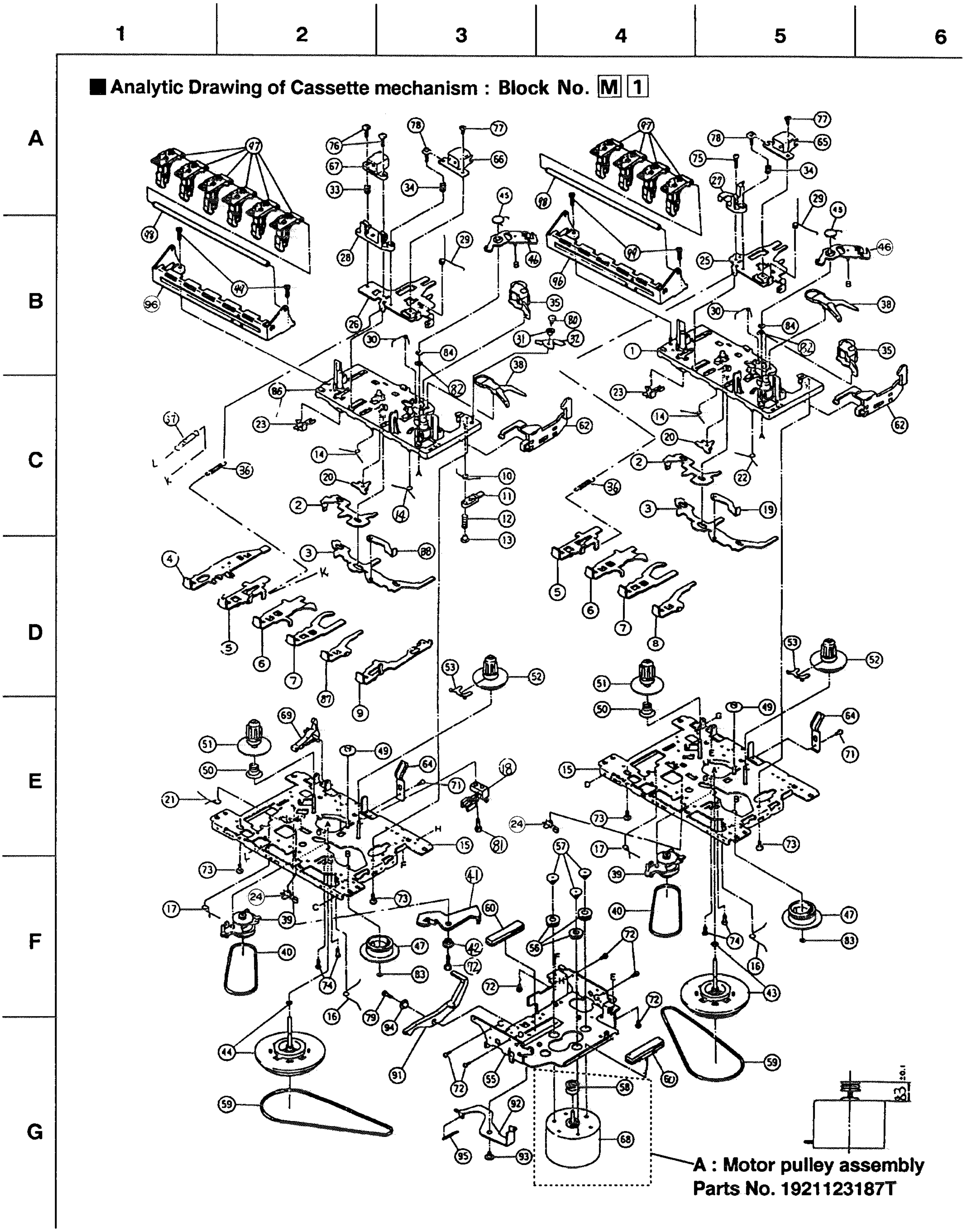


Fig. 7-11

8. Analytic Drawing and Parts

■ Analytic Drawing of Cassette mechanism : Block No. M 1



A : Motor pulley assembly
Parts No. 1921123187T

Fig. 8-1

■ Mechanism assembly parts list

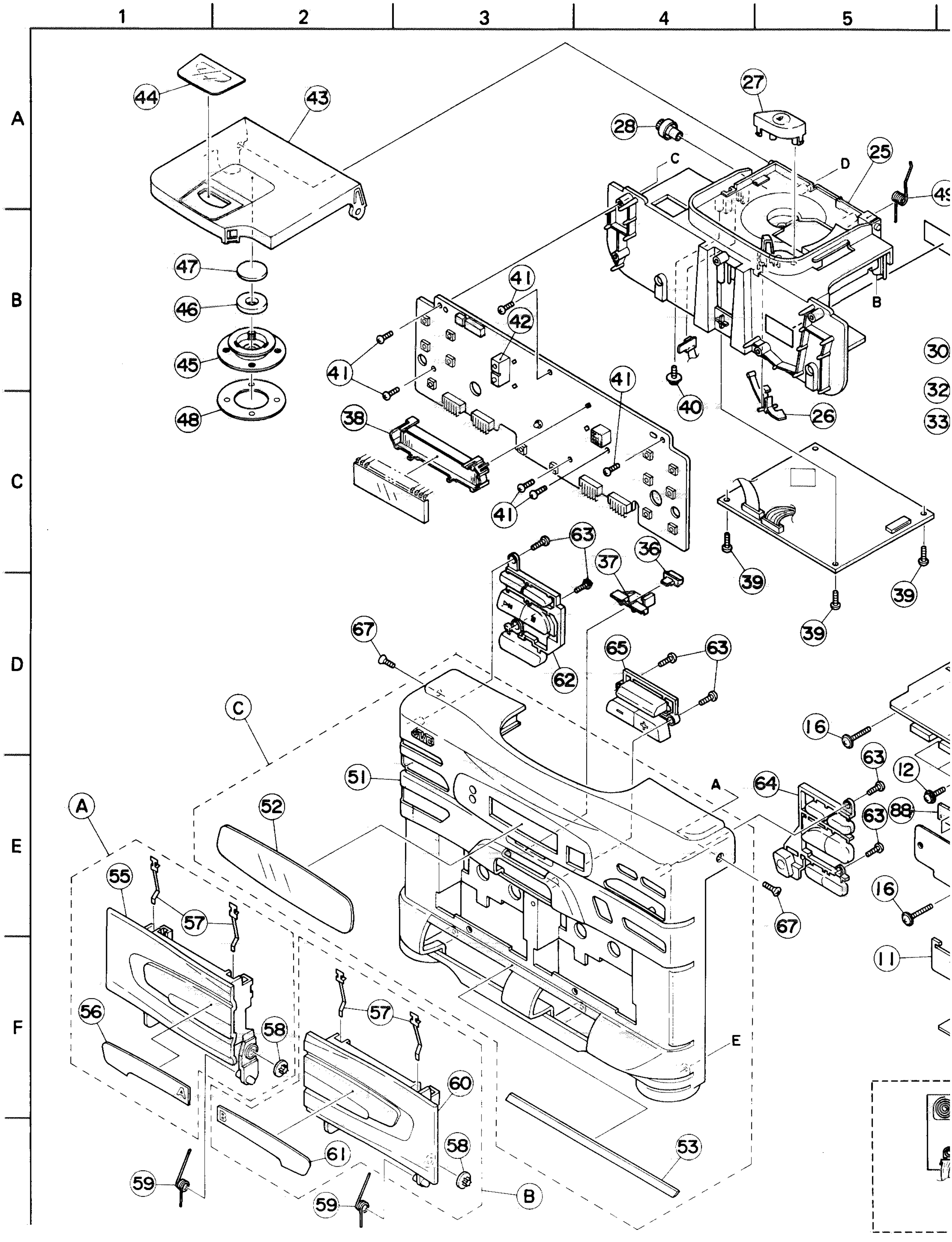
BLOCK NO. M1MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A	1921123187T	MOTOR ASSY	REF.58.68	1		
	1	192114301ZT	BASE ASS'Y		1		
	2	19211409T	SWITCH PLATE		2		
	3	19211438T	LOCK CAM	ACTUATER	2		
	4	19211422T	PUSH LEVER	REC	1		
	5	19211484T	PUSH LEVER	PLAY	2		
	6	19211424T	PUSH LEVER	REW	2		
	7	19211425T	PUSH LEVER	FF	2		
	8	19211426T	PUSH LEVER	STOP	1		
	9	19211461T	PUSH LEVER	PAUSE	1		
	10	19211413T	SPRING	P.CONTROL	1		
	11	19211455T	PAUSE LEVER		1		
	12	19211412T	SPRING		1		
	13	19211411T	LOCK STOPPER		1		
	14	19211414T	SPRING		3		
	15	192101501ZT	CHASSIS ASS'Y		2		
	16	19211416T	SPRING	E.ACTUATER	2		
	17	19211417T	SPRING	PS.LEVER	2		
	18	64010138T	LEAF SWITCH		1		
	19	182101159T	E.KICK LEVER		1		
	20	19211420T	ARM STOPPER		2		
	21	19211449T	SPRING	REC.BUTTON LEV.	1		
	22	19211433T	SPRING	BOTTON LEVER	1		
	23	MSW-1541T	LEAF SWITCH		2		
	24	640101161T	LEAF SWITCH		2		
	25	19210311T	HEAD PANEL		1		
	26	19210314T	HEAD PANEL		1		
	27	19210304AT	HEAD BASE		1		
	28	19210306T	HEAD BASE		1		
	29	19210309T	SPRING		2		
	30	19211418AT	SPRING		2		
	31	19211437T	COLLAR		1		
	32	19211434T	CONTROL ARM		1		
	33	18210308T	SPRING		1		
	34	18210307T	SPRING	AZIMUTH	2		
	35	192104306T	PINCH ROLLER		2		
	36	18210150T	SPRING	P.BOTTON LEVER	2		
	37	18211311T	SPRING	E.SLIDE LEVER	1		
	38	19212604TT	SENSING LEVER		2		
	39	192107308T	R.F.CLUTCH		2		
	40	18210711T	FR BELT		2		
	41	19210201T	RECORDING ARM		1		
	42	19211437T	COLLAR		1		
	43	192109318T	FLYWHEEL		1		
	44	192109317T	FLYWHEEL		1		
	45	19212605T	SPRING	GEAR PLATE	2		
	46	192126502ZT	GEAR PLATE ASSY		2		
	47	19212602T	CAM GEAR		2		
	49	18211070T	IDLER GEAR		2		
	50	18291010T	SPRING	BACK TENSION	2		
	51	192105304T	SUP.REEL DISK		2		
	52	192105303T	T.U.REEL DISK		2		
	53	19210506T	ADJUST RING		2		
	55	19211211T	MOTOR BRACKET		1		

BLOCK NO. M1MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	56	18211266T	RUBBER BUSHING		3		
	57	18511418T	SCREW	MOTOR COLLER	3		
	58	19211213T	MOTOR PULLEY		1		
	59	19210923T	CAPSTAN BELT		2		
	60	182112126T	FELT		2		
	62	19211302T	SLIDE LEVER		2		
	64	18291001T	SPRING		2		
	65	MS15R-AA2N1	P.HEAD		1		
	66	MS15R-AA2N1	P.R.HEAD		1		
	67	LE15A-C1	E.HEAD		1		
	68	60020222T	CAPSTAN MOTOR		1		
	69	18211069T	KICK LEVER		1		
	71	91790000T	SCREW	M2X3	2		
	72	91800000T	SCREW	M2X4	7		
	73	96790000T	SCREW	M2X5	4		
	74	99991809T	SCREW	M2X4.5	6		
	75	90040000T	SCREW	M2X6	1		
	76	92230000T	SCREW	M2X7.5	2		
	77	91150000T	SCREW	M2X3	2		
	78	99220000T	SCREW	M2X7:AZIMUTH	2		
	79	91820000T	SCREW	M2X6	1		
	80	99992041T	SCREW	M2X3	1		
	81	91810000T	SCREW	M2X5	1		
	82	99990003T	POLY WASHER		2		
	83	94220000T	WASHER		2		
	84	99990313T	WASHER		2		
	86	192114316T	BUTTON BASE		1		
	87	19211466T	BUTTON LEVER		1		
	88	19211464T	KICK LEVER		1		
	91	19211209T	KICK LEVER		1		
	92	18211268T	KICK LEVER		1		
	93	18211223T	SCREW		1		
	94	18211265T	COLLAR		1		
	95	18211312T	SPRING		1		
	96	18213106T	FRAME		2		
	97	18213107T	SELECT LEVER		10		
	98	18293103T	SHAFT	BOTTON LEVER	2		
	99	99991402T	SCREW	M2X8	4		

■ Enclosure Assembly Section: Block No. M 2



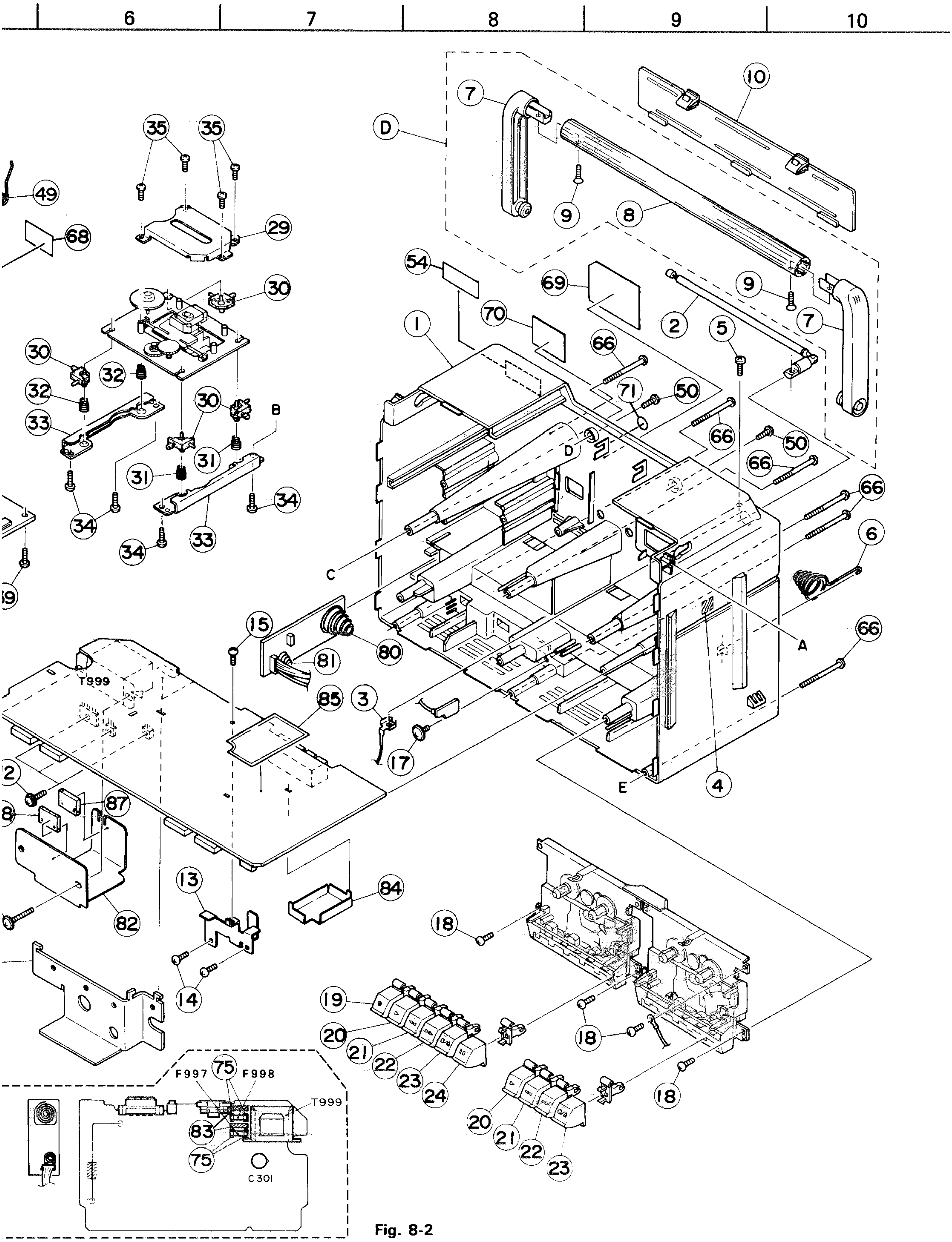

D
B
D
C
A
E
T999
F997
F998
T999
C301

Fig. 8-2

■ Enclosure assembly parts List

BLOCK NO. M2MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A	ZCPRX110K-CBA	CASSETTE CASE A	REF.55-57	1		
	B	ZCPRX110K-CBB	CASSETTE CASE	REF.57,60,61	1		
	C	ZCPRX110K-FBK	FRONT CABINET	REF.51-53	1		
	D	PCX130K-HANDLE	HANDLE	REF.7,8	1		
	1	FSJC1003-007	REAR CABINET		1		
	2	VJA3006-00E	ROD ANT ASS'Y	5 SECTIONS EXTE	1		
	3	VYH5012-005SS	TERMINAL LUG		1		
	4	VYSH101-009	SPACER		1		
	5	SDSP3012N	SCREW	ROD ANT+R.CABI	1		
	6	VYH5657-001	BATTERY SPRING	SP02	1		
	7	VJH3061-002	HANDLE HOLDER		2		
	8	VJH4093-117MM	HANDLE PIPE		1		
	9	SHSF3012N	SCREW	HANDLE PIPE	2		
	10	VJC2016-023SS	BATTERY COVER		1		
	11	VYH3810-001	HEAT SINK		1		
	12	DPSP3010Z	SCREW	P.IC + HEAT SIN	3		
	13	FSKL4003-002	AC BRACKET		1		
	14	SBSF3012Z	SCREW	AC BKT+REAR CAB	2		
	15	SBST3006Z	SCREW	AC BKT + AMP PW	1		
	16	GBSF4020Z	SCREW	P.TRANS+REAR CA	2		
	17	GBSF3008Z	TAPPING SCREW	FOR BATTERY PWB	1		
	18	SBSF3012Z	SCREW	MECHA+REAR CABI	4		
	19	VXP3348-201	BUTTON	A/REC B-1(BLACK	1		
	20	VXP3348-203	BUTTON	A,B/PLAY B-1(BL	2		
	21	VXP3348-204	BUTTON	A,B/REW B-1(BL	2		
	22	VXP3348-205	BUTTON	A,B/FF B-1(BLAC	2		
	23	VXP3348-206	BUTTON	A,B/STOP B-1(BL	2		
	24	VXP3348-207	BUTTON	A/PAUSE B-1(BLA	1		
	25	FSJD1002-001	CD CASE		1		
	26	VKS5416-001	LOCK ARM		1		
	27	VXP5160-003	CD EJECT BUTTON		1		
	28	VYH4769-002	GEAR		1		
	29	VJD5410-204	PICK COVER		1		
	30	VYH6596-201	CD CUSHION	FOR CD MECHA	4		
	31	VKW4693-101	CONICAL SPRING	FOR CD MECHA	2		
	32	VKW4693-102	CONICAL SPRING	FOR CD MECHA	2		
	33	VKL7209-002	CD MECHA HOLDER		2		
	34	SBSF3012Z	SCREW	CD ASS'Y+CD CAS	4		
	35	SDSF2006M	SCREW	CD MECHA+PICK C	4		
	36	VJD5443-002	LED LENS	FOR F.CABI.&L.H	1		
	37	VKS5472-002	LENS HOLDER	FOR LED LENS	1		
	38	FSYH4006-001	LCD HOLDER		1		
	39	SBSF3012Z	SCREW	CD AMP PWB +CD	3		
	40	GBSF3010Z	TAPPING SCREW		1		
	41	SBSF3012Z	SCREW	CONT.PWB+CD CAS	6		
	42	FSYH4018-001	LED HOLDER		1		
	43	FSJT1001-002	CD DOOR		1		
	44	FSJD4003-002	CD LENS		1		
	45	VYH3644-201	CLAMPER		1		
	46	VYH7313-003	MAGNET		1		
	47	VYH7314-001	YOKE		1		
	48	VYH7315-004	PAD		1		
	49	VKW5034-001	CD DOOR SPRING		1		
	50	SBSF3014Z	SCREW	CD CASE+R.CABI	2		
	51	FSJC1005-004	FRONT CABINET		1		

BLOCK NO. M2MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	52	FSJD3001-004	LCD LENS		1		
	53	FSJD3002-003	CONTROL PLATE		1		
	54	VND4205-004	CAUTION LABEL	REAR CABINET	1	B	
	55	FSJT2002-003	CASSETTE DOOR(A		1		
	56	FSJT3001-003	CASSETTE LENS(A		1		
	57	VKY4180-001	CASSETTE SPRING		2		
		VKY4180-001	CASSETTE SPRING		2		
	58	VYH5601-001	GEAR		1		
		VYH5601-001	GEAR		1		
	59	FSKW4001-002	DOOR SPRING		1		
		FSKW4001-002	DOOR SPRING		1		
	60	FSJT2002-004	CASSETTE DOOR(B		1		
	61	FSJT3001-004	CASSETTE LENS(B		1		
	62	FSXP3001-002	CD BUTTON		1		
	63	SBSF2608Z	SCREW	FOR CD BOTTON	2		
		SBSF2608Z	SCREW	FOR VOLUME KNOB	2		
		SBSF2608Z	SCREW	FOR TUNER BOTTO	2		
	64	FSXP3002-002	TUNER BUTTON		1		
	65	FSXP3003-103	VOLUME KNOB		1		
	66	SBSF3050Z	SCREW	F.CABINET+R.CAB	6		
	67	SSSF3010M	SCREW	F.CABINET+R.CAB	2		
	68	VND4220-001	LASER CAUTION		1		
	69	VYN7063-005T	NAME PLATE		1	E,EN	
		VYN7063-002T	NAME PLATE		1	B	
		VYN7063-008T	NAME PLATE		1	G	
	70	VND4221-001	CLASS 1 LABEL		1		
	71	QZL1007-001	BEAB LABEL	REAR CABINET	1	B	
	75	VMZ0087-001Z	FUSE CLIP	SECONDARY F998	2		
		VMZ0087-001Z	FUSE CLIP	SECONDARY F997	2		
	80	VYH5483-001	SPRING	SP01	1		
	81	VYH6889-002	BATT.SPRING	SP03	1		
	82	FSYH4017-002	SHIELD	SILICON STEEL T	1		
	83	VND4003-080	FUSE LABEL	FOR F998	1		
		VND4003-080	FUSE LABEL	FOR F997	1		
	84	VMA4482-002SS	SHIELD CASE		1		
	85	VMA4572-002	SHIELD		1		
	87	FSSH4001-003	SPACER	FOR SHIELD	1		
	88	FSSH4001-002	SPACER	FOR SHIELD	1		
⚠	F 997	QMF51E2-5R0	FUSE		1		
⚠	F 998	QMF51E2-5R0	FUSE		1		
⚠	T 999	VTP57P2-12C	POWER TRANS		1		

■ Speaker box assembly section : Block No. M3

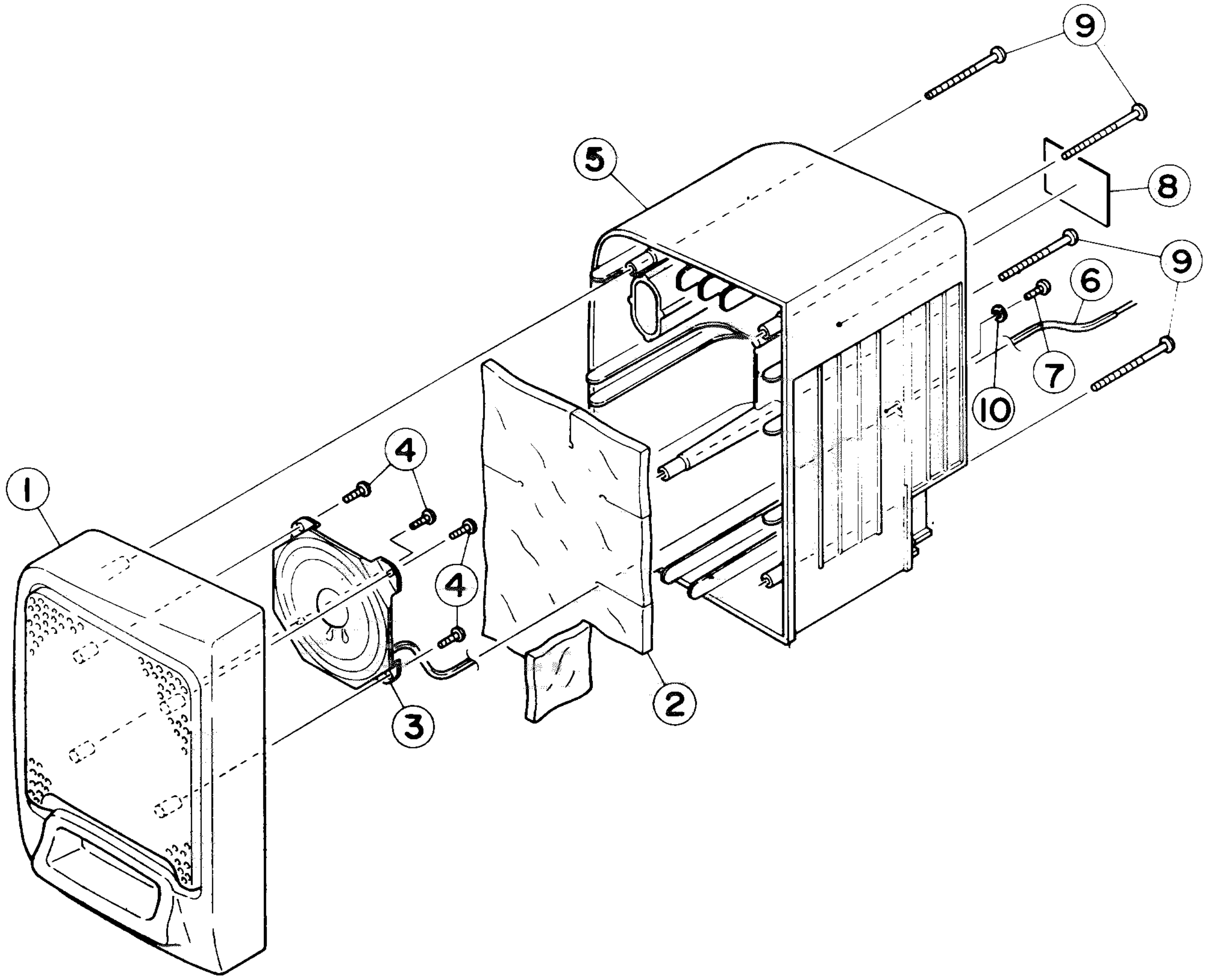


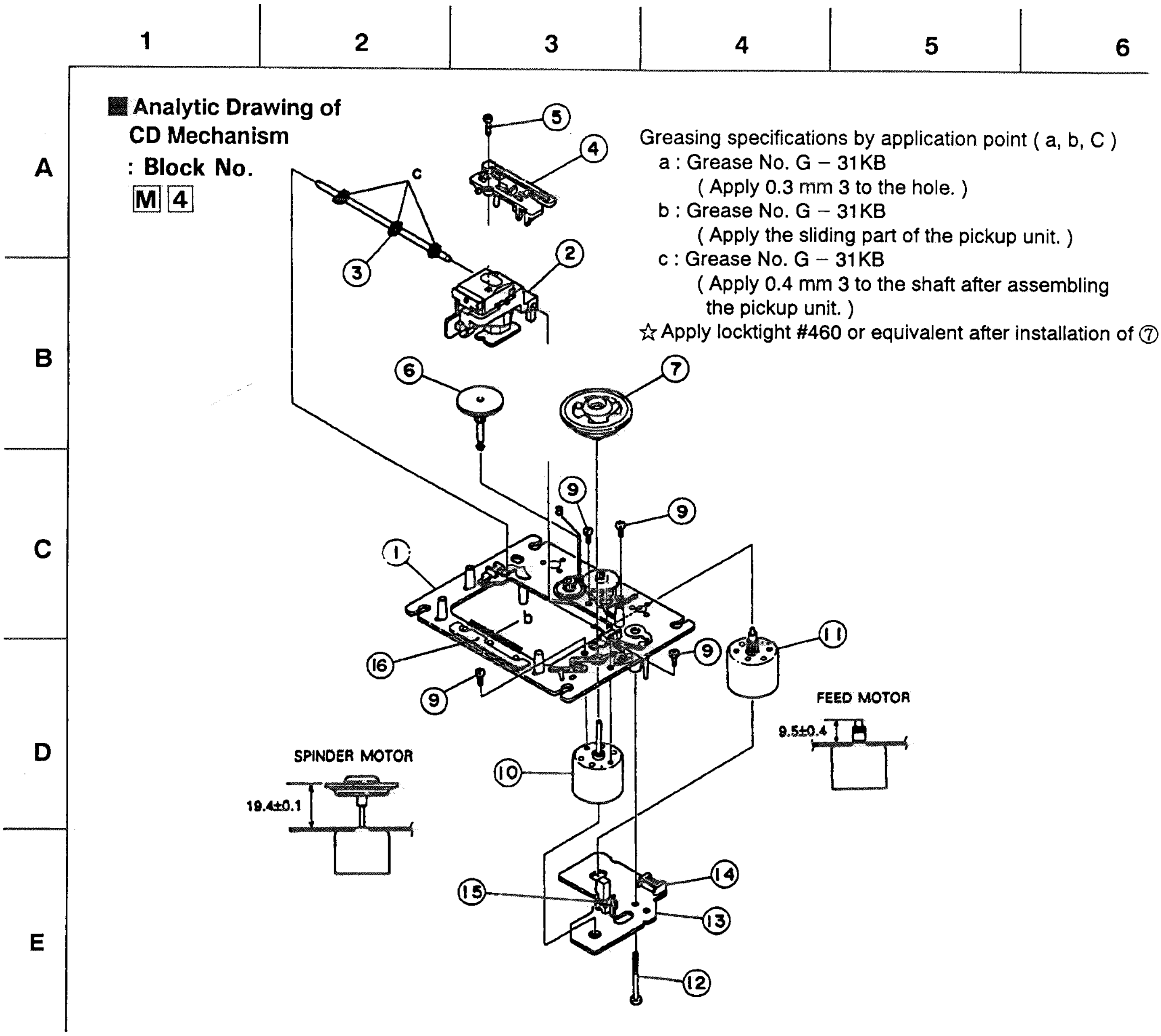
Fig. 8-3

■ Speaker box assembly parts list

BLOCK NO. M3MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	VJC2504-00A	SP PANEL ASSY(R		1		
		VJC2503-00A	SP PANEL ASSY(L		1		
	2	VKZ4687-001	SOUND ABSOBER		1		
	3	VGS1001-014	SPEAKER	SP101	1		
	4	SBSF3010Z	SCREW	SPEAKER+FRONT	4		
	5	VJG1112-004	SP REAR CABI(L)		1		
		VJG1114-002	SP REAR CABI(R)		1		
	6	VMP0040-002T	SPK CORD		1		
	7	SBSF3008M	SCREW		1		
	8	VYN7063-001B	NAME PLATE	FOR REAR CABINE	1		
	9	SBSF3050Z	SCREW	FRONT+REAR	4		
	10	VYSS2R7-006	SPACER		1		

■ Analytic Drawing of CD Mechanism : Block No. M 4



Greasing specifications by application point (a, b, C)
a : Grease No. G – 31KB
(Apply 0.3 mm 3 to the hole.)
b : Grease No. G – 31KB
(Apply the sliding part of the pickup unit.)
c : Grease No. G – 31KB
(Apply 0.4 mm 3 to the shaft after assembling the pickup unit.)
☆ Apply locktight #460 or equivalent after installation of ⑦.

Fig. 8-4

■ CD mechanism parts list

BLOCK NO. M4MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	EPB-002A	MECHA BASE ASSY		1		
	2	OPTIMA-6S	OPTICAL PICK-UP		1		
	3	E406777-001	GUIDE SHAFT		1		
	4	E307746-001	CD RACK		1		
	5	SDSF2006Z	SCREW		1		
	6	EPB-003A	MECHA GEAR		1		
	7	E75807-301	TURN TABLE		1		
	9	SDSP2003N	SCREW		1		
	10	E406783-001	DC MOTOR	FOR SPINDLE	1		
	11	E406784-001SA	DC MOTOR ASSY	FOR FEED	1		
	12	E75832-001	SPECIAL SCREW		1		
	13	EMW1090-001	PRINTED BOARD		1		
	14	EMV5109-006B	CONN.TERMINAL		1		
	15	ESB1100-005	LEAF SWITCH		1		
	16	E4072312-001	DAMPER		1		

9. Main Adjustment

■ Test Instruments reqired for adjustment

1. Low frequency oscillator
   (oscillation frequency: 50Hz to 20kHz)
   (Output : 0 dBs with 60 Ω terminator)
2. Attenuator(Impedance : 600 Ω)
3. Test Tapes
   VTT703L·························Head azimuth(10kHz)
   VTT712 ·············· Tape speed & wow flutter(3kHz)
   VTT739 ············ Playback output level & frequency response (1kHz)
4. Electronic voltmeter
5. Resistor...600 Ω for attenuator matching
6. Distortion meter
7. Torque gauge ············ Cassette type for CTG − N mechanism adjustment
8. Wow and Flutter meter
9. Frequency counter
10. Test tape for REC/PB ····Normal tape : UR(TMT7088)

■ Measuring conditions (Amplifier section)

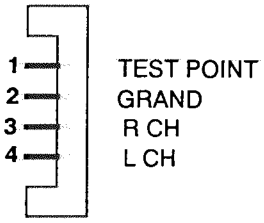
Supply voltage:······· AC 240V(50/60Hz); PC − X110B
AC230V(50/60Hz)Excep B version
Battery DC : 12V
Back up battery : 6V

Reference output : Speaker ······ 20mW (0.245V) / 3 Ω
: Headphone ··0.11mW(0.06V)/ 32 Ω

● Standard position of functionswitches

Function switch ···································· TAPE
Tape select switch ·······························NORMAL
Multi − bass horn ··································OFF
Equalizer ··· CENTER
Volume level··13
■ Mode switch ···································· STEREO
Reference input level······Test point CN301 : − 18 dBs
For REC/PB, Check &measuring input use
CN301 ················· − 18.0 dBs (Component side)

CN301 CONNECTOR



Output for measuring unless otherwise specified
At headphone J301 with dummy load 32 Ω
BIAS ocillation frequency ····· 101.0kHz ± 150Hz at FM
(The tape select switch to NORMAL.)

Standard frequency for alignment and measurement as a general specification is 1 kHz, but unless otherwise specified.

Note : When measuring at headphone output, sound from speaker output should be automatically cut off.

■ Measuring condition (Radio section)

Reference output ······· Speaker : 20mW(0.245V) / 3 Ω
AM frequency ····················400Hz modulation 30%
FM frequency ························400Hz modulation frequency deviation 22.5kHz

● Standard position of switches and controllers

Function··RADIO
Mode ······································· STEREO
Equalizer frequency ····················· CENTER
Multi bass horn ································· OFF

● Careful points for adjustment

1. Connect 30 pF capacitor and 33 k Ω resistor to the output side of the IF sweeper in series while 0.082 μF capacitor and 1000k Ω resistor to the input side in series.
2. Set output level of the IF sweeper as minimum as adjustable.

Mechanism & Amplifier Sections

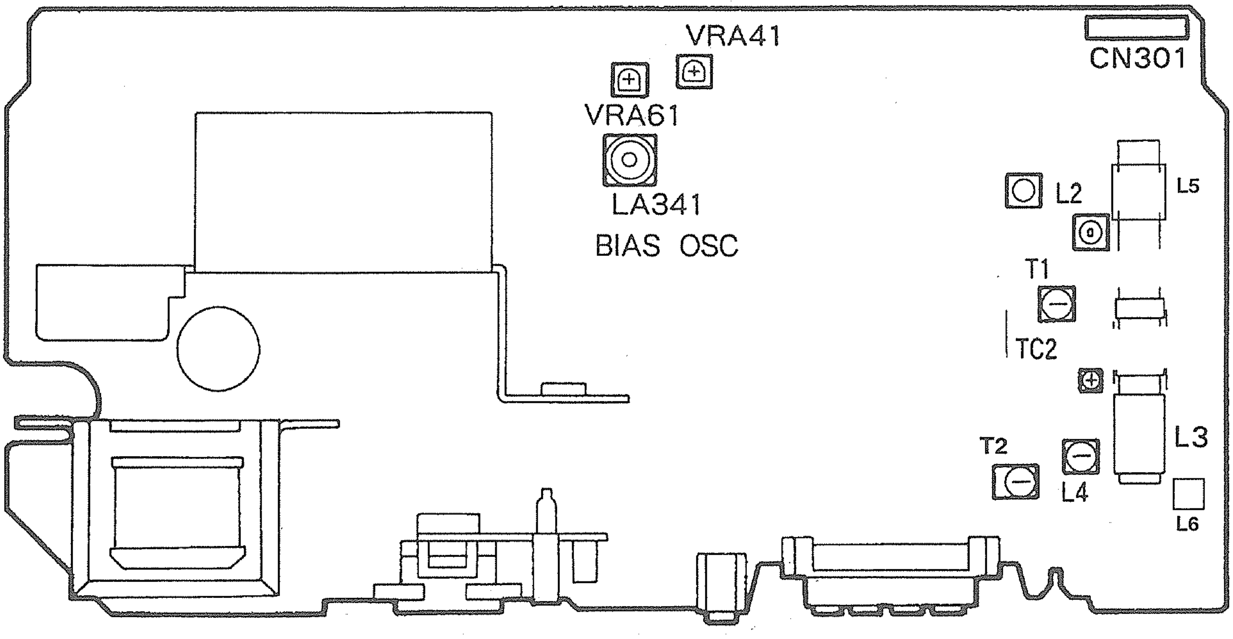
Item	Conditions	Adjustment & Confirmation Methods	Stand. values	Adjust
Head azimuth adjustment	Test tape :VTT703L (10 kHz) Test point :Headphone (Dummy load 32 Ω)	Play test tape VTT703L(10kHz) and adjust the head azimuth so that output level is maximum and phase discrepancy is minimum between the two channels.	Output :maximum Phase difference :minimum	Head adjusting screw
Motor speed adjustment	Test tape : VTT712(3kHz) Test point : Headphone (Dummy load 32 Ω)	Play test tape VTT712 (3kHz) and near the end posiition. Should the following tape speed is out of specification, it is necessary to adjust the speed controller (external /semiifixed resistor).	Normal speed : 3010^{+80}_{-50}Hz High speed : 5400 ± 400 Hz	VRA61
Wow and flutter check	Test tape :VTT712(3kHz) Test point :Headphone (Dummy load 32 Ω)	Play test tape VTT712(3kHz) to tape start, middle and end position. Wow and flutter should be within the following allowance at the three positions.	Playback should be within o.4% (JIS RMS)	–
Playback output level check	Test tape :VTT739(1kHz) Test point : Speaker out (Dummy load 32 Ω)	1. Play test tape VTT739(1kHz) and switch the tape select to Metal position. The playback output level should be within − 3 ± 3 dB. 2. L, R difference level to be within 3dB.	Within − 3 ± 3dB within 3dB	–
Frequency response check	Test tape :VTT739 (1kHz//10kHz) Test point : Speaker out	Switch tape select to Normal position and volume at maximum level of 25 position. Play test tape VTT739 then compare the level between 1 kHz and 10 kHz. Then defference level should be within 0dB ± 3 dB.	Difference of 10 kHz level from 1 kHz level : within 0 ± 3dB	–

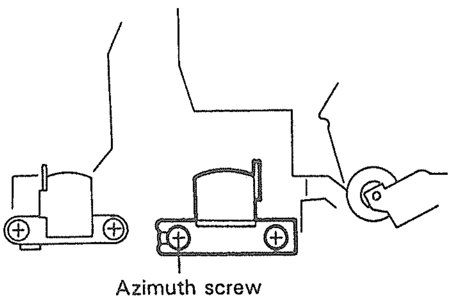
<table>
<tr><th>Item</th><th>Conditions</th><th>Adjustment & Confirmation Methods</th><th>Stand. values</th><th>Adjust</th></tr>
<tr><td>Bias frequency adjustment</td><td>• Adjust : FM mode
•Confirm : AM mode
Test point :CN301</td><td>Switch tape select to Normal position. In case that the bias frequency is out of specification, LA341 should be readjusted to standard and set to Tuner Rec. position for alignment.
① Adjust bias frequency at FM mode.
② Confirm bias frequency at AM mode.
<table>
<tr><th>Tuner Frequency</th><th>Bias Frequency</th><th>Tolerance</th><th>Confirmation</th></tr>
<tr><td>FM</td><td>101.0kHz</td><td>± 150Hz</td><td>–</td></tr>
<tr><td>AM530(M1)</td><td>97.2kHz</td><td>–</td><td>± 500Hz</td></tr>
<tr><td>AM570</td><td>101.0kHz</td><td>–</td><td>± 500Hz</td></tr>
<tr><td>AM600(M3)</td><td>93.1kHz</td><td>–</td><td>± 500Hz</td></tr>
</table></td><td>Tuner frequency :FM / Bias frequency ; 101.0kHz
: AM530(M1) /Bias frequency ; 97.2kHz</td><td>LA341</td></tr>
<tr><td>Recording /playback frequency response check and adjustment</td><td>Test tape : UR(Normal tape)
Test point : Speaker out (Dummy load 32 Ω)</td><td>Select function to tape mode and volume at level 25 position. Reference level of − 20 dB, (1 kHz and 10 kHz) perform the REC/PB function. Play back the recorded signals, adjust VR41, so that the level of the 10 kHz signal is 0dB ± 3 dB to the level of the 1 kHz signal.</td><td>10 kHz : 0 ± 3dB</td><td>VR41</td></tr>
<tr><td>Prealignment the bias current of REC.</td><td>Test point : CN301</td><td>Turn tape select switch to Normal position.
Beat cut switch to Normal position and REC.mode.
Adjust VR41 so that bias current to Normal level 420 μ A.</td><td>Bias current : 420 μ A</td><td>VR41</td></tr>
<tr><td>Recording / playback sensitivity</td><td>Test point : Speaker out</td><td>Turn NR switch to OFF, tape select switch to Normal position and Beat cut switch to Normal position 1 or Normal.
Record the standard level (REF.) reduced − 20dB, 1kHz.
Adjust VR41 so that test point output level to same level in play and record mode.</td><td>Playback /record : same output level</td><td>VR41</td></tr>
<tr><td>High speed dubbing</td><td>Test tape : VTT739
Test point : Speaker out</td><td>Turn speed switch to high, tape select to Normal, Beat cut to Normal position.
Make a dubbing from the test tape VTT739 and then to be copied frequency response should be kept the followings.
10 kHz / 1kHz : less than 0 dB ± 4dB</td><td>10kHz / 1kHz : 0dB ± 4dB</td><td>–</td></tr>
</table>

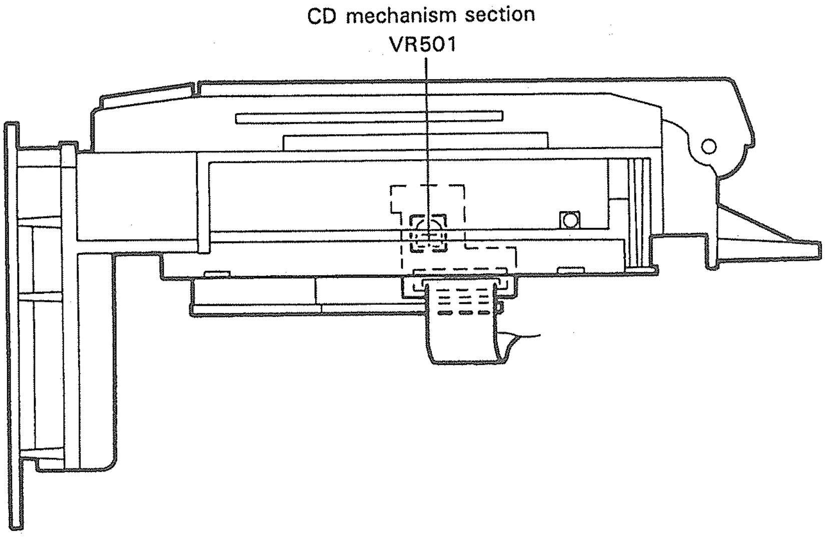
■Tuner Section (*AM,FM IF Adjust : No allignment is neccessary, in using the solid IF.)

Item	Conditions	Adjustment & Confirmation Methods	Stand. values	Adjust
MW RF tracking check	Band select : AM Input position : Standard loop antenna Output position : Headphone jack	1. Receive 1629kHz signal (preset No.2) from an AM oscillator by the set while adjusting L4 to maximize output.Adjust L4 tp obtain 4.3 ± 0.02V at TP9. 2. Receive 603kHz signal (preset No.3) from an AM oscillator by the set while adjusting L3 to maximize headphone output. 3. Next, receive 1404kHz signal (preset No.4) while adjusting TC2 to maximize headphone output. 4. Repeat the above steps 1. and 2.	utput level :Maximum	L4 L3 TC2 L3 andTC2
FM RF tracking check	Band select :FM Input posision :Dummy antenna unbalanceed 75 Ω Positive side :TP1 Negative side : TP2	1. Receive 87.5MHz signal (preset No.1) from an FM oscillator , Maximum capacity. 2. Next, receive 108.0MHz signal (preset No.2), Minimum capacity. 3. Adjust L1 to obtain 1.3 ± 0.02V at TP9. 4. Receive 88MHz signal from an FM oscillator by the set while adjusting L2 to maximize headphone output. 5.. Next, receive 106MHz signal , Confirm so that the maximize output. 6. Repeat the above steps 4. and 5. to obtain maximum outputs respectively.	Output level :maximum 1.3 ± 0.02V	L2
LW RF tracking check	Band select : LW Input position : Standard loop antenna Test point : TP9	1. Receive 144kHz signal (preset No.6) from an AM oscillator by the set while adjusting L6 to maximize test point TP9. 2. Next, receive 288kHz signal (preset No.7), Minimum capacity. 3. Adjust L6 to obtain 1.1 ± 0.02V at TP9. 4. Receive 144kHz signal (preset No.6) while adjusting L5 to maximize test point TP9. 5. Next, receive 288kHz signal (preset No.7) while adjusting TC3 to maximize test point TP9. 6. Repeat the above steps 4. and 5. to obtain maximum outputs respectively.	Output level :Maximum 1.1 ± 0.02V at TP9	L6 L6 L5 TC3

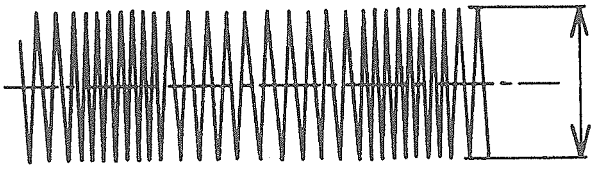
■ Arragement of adjust (Test point : refer to page 48.)



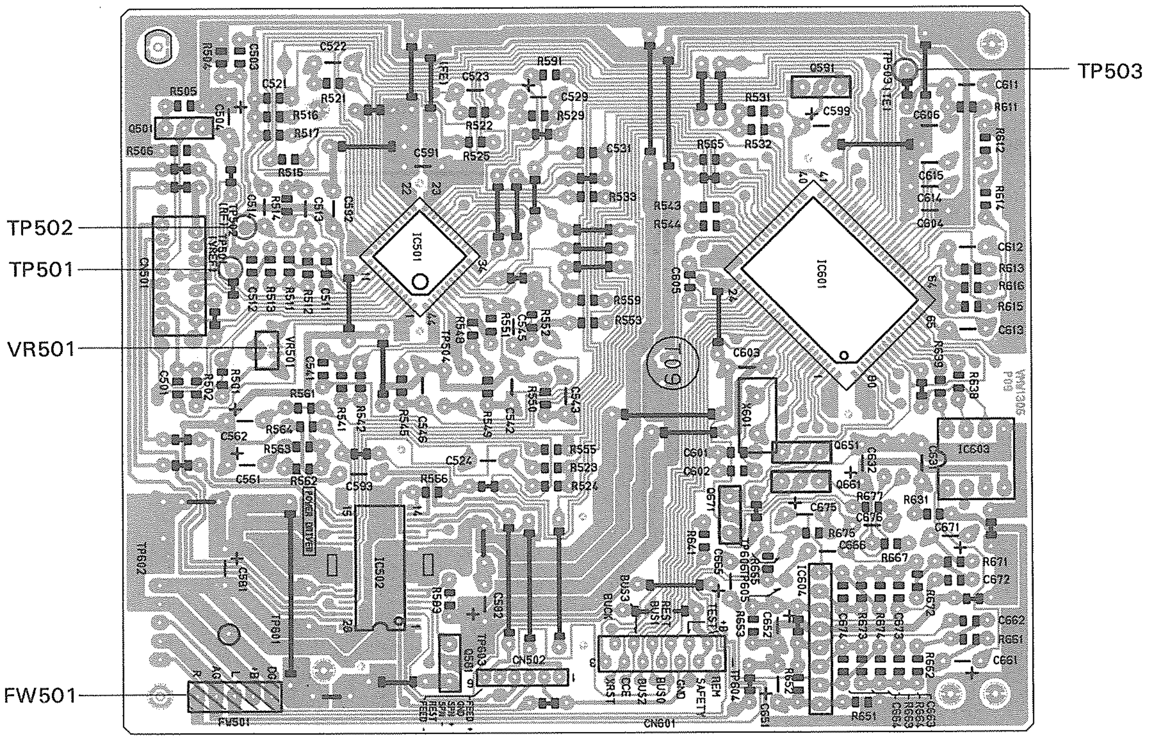




CD player Section

Item	Conditions	Adjustment & Confirmation Methods	Stand. values	Adjust
Tracking offset adjustment	Normal disc :CTS1000 Oscilloscope	1. Connect an oscilloscope between TP503 (Hot side) and TP502 (Earth side). 2. Shortcircuit between pin ② and pin ⑤ of FW501, and supply 8 V to pin ③ . 3. Playback a normal disc. 4. Shortcircuit between TP504 and TP502. 5. Adjust VR501 so that DC level of tracking error signal becomes zero (observed by oscilloscope). Tracking offset waveform  Set the center of P-P to the DC zero level. Note : (1) Adjust VR501 so that the waveform is vertically symmetric with respect to the zero level. (2) Input to the oscilloscope should be DC coupling.	Set the center of P – P to the DC zero level.	VR501

Arrangement of adjusting positions : CD amplifier P.C. board



10. Block Diagram

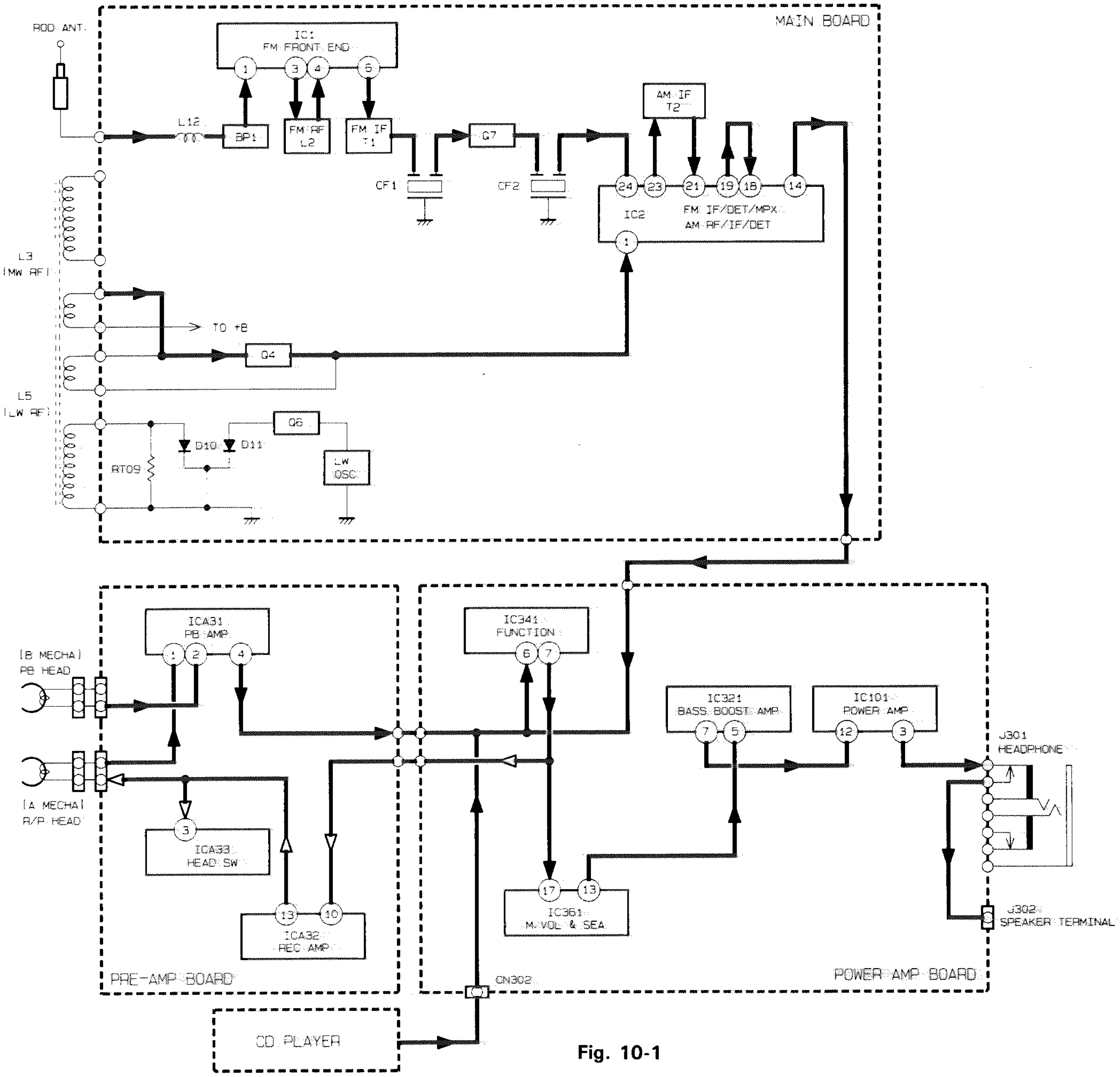


Fig. 10-1

■ CD player section

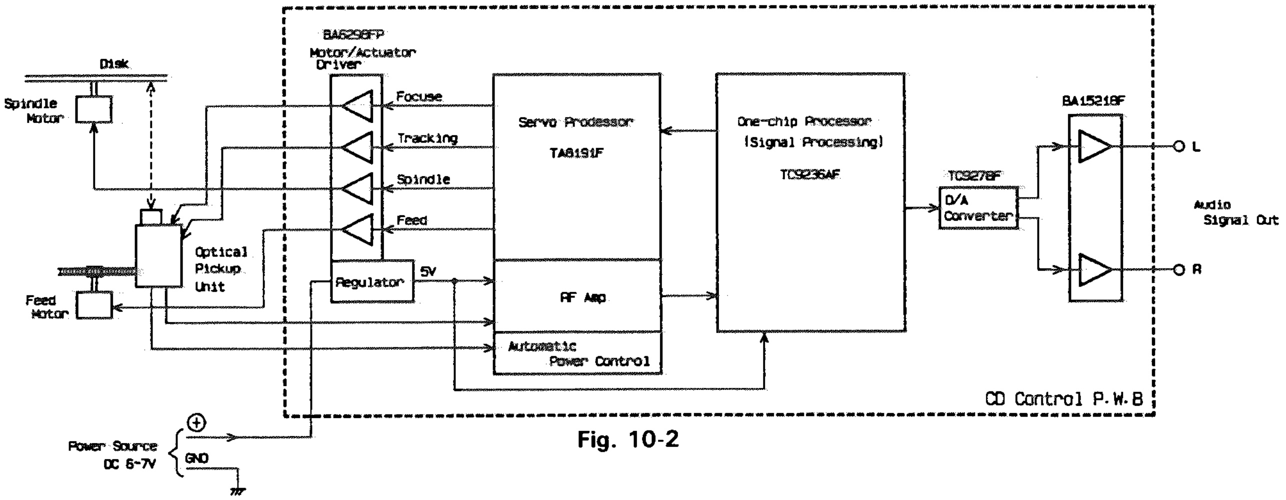


Fig. 10-2

11. Wiring Connections

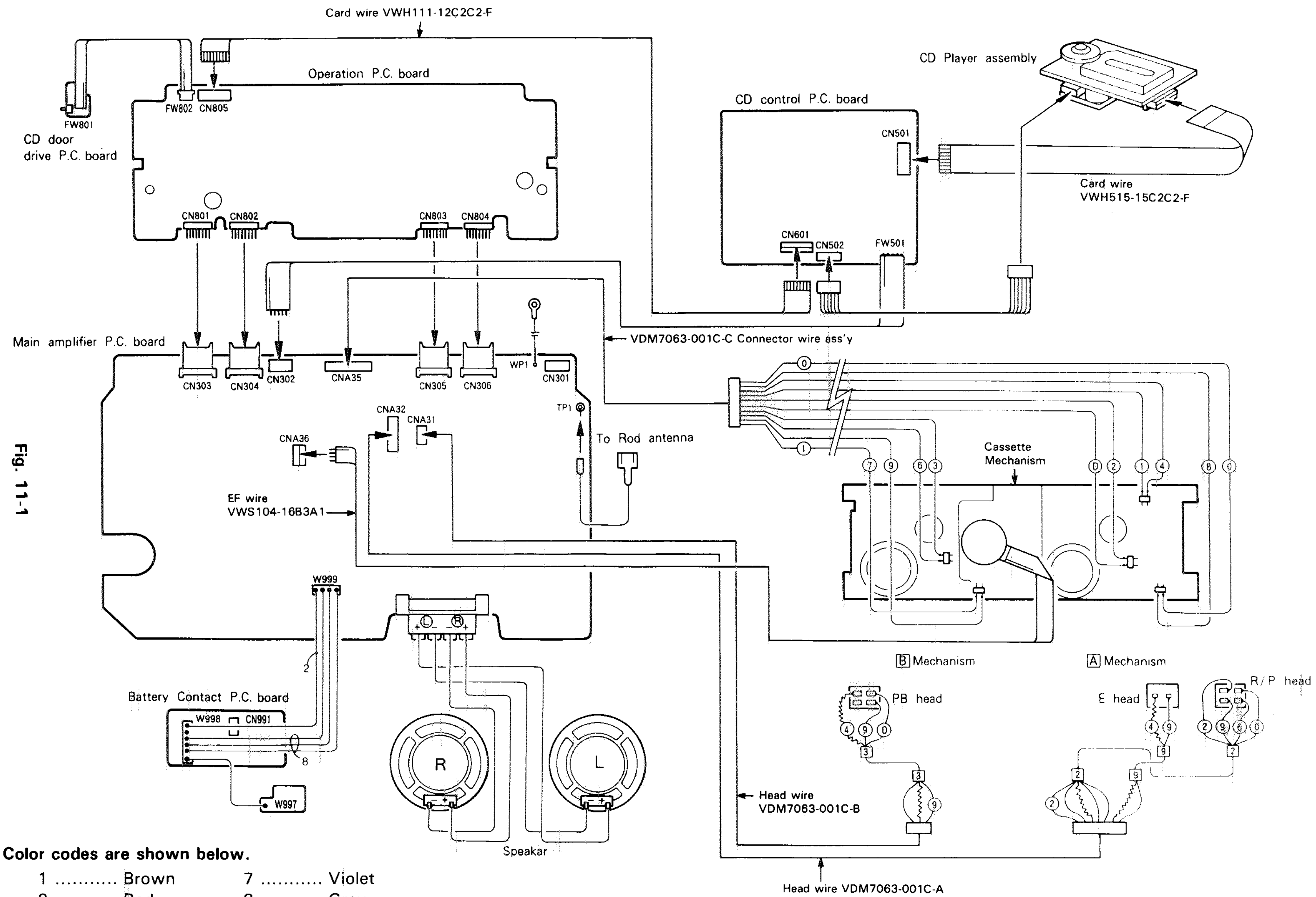


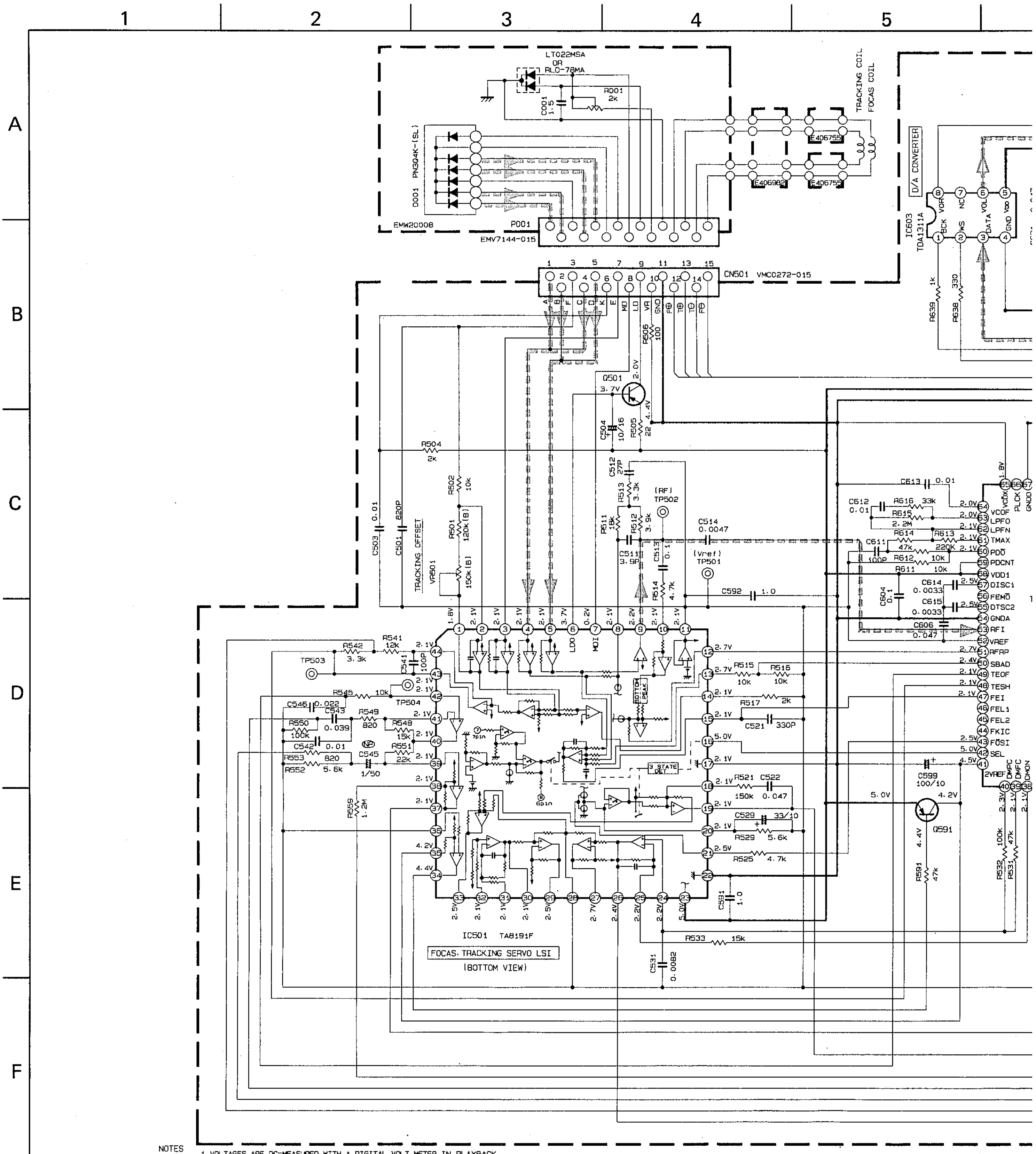
Fig. 11-1

Color codes are shown below.

1	Brown	7	Violet
2	Red	8	Gray
3	Orange	9	White
4	Yellow	0	Black
5	Green	D	Pink
6	Blue	C	Light Blue

12. Standard Schematic Diagrams

■ CD Amplifier Circuit: Drawing No. VDH706



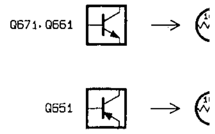
NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER IN PLAYBACK

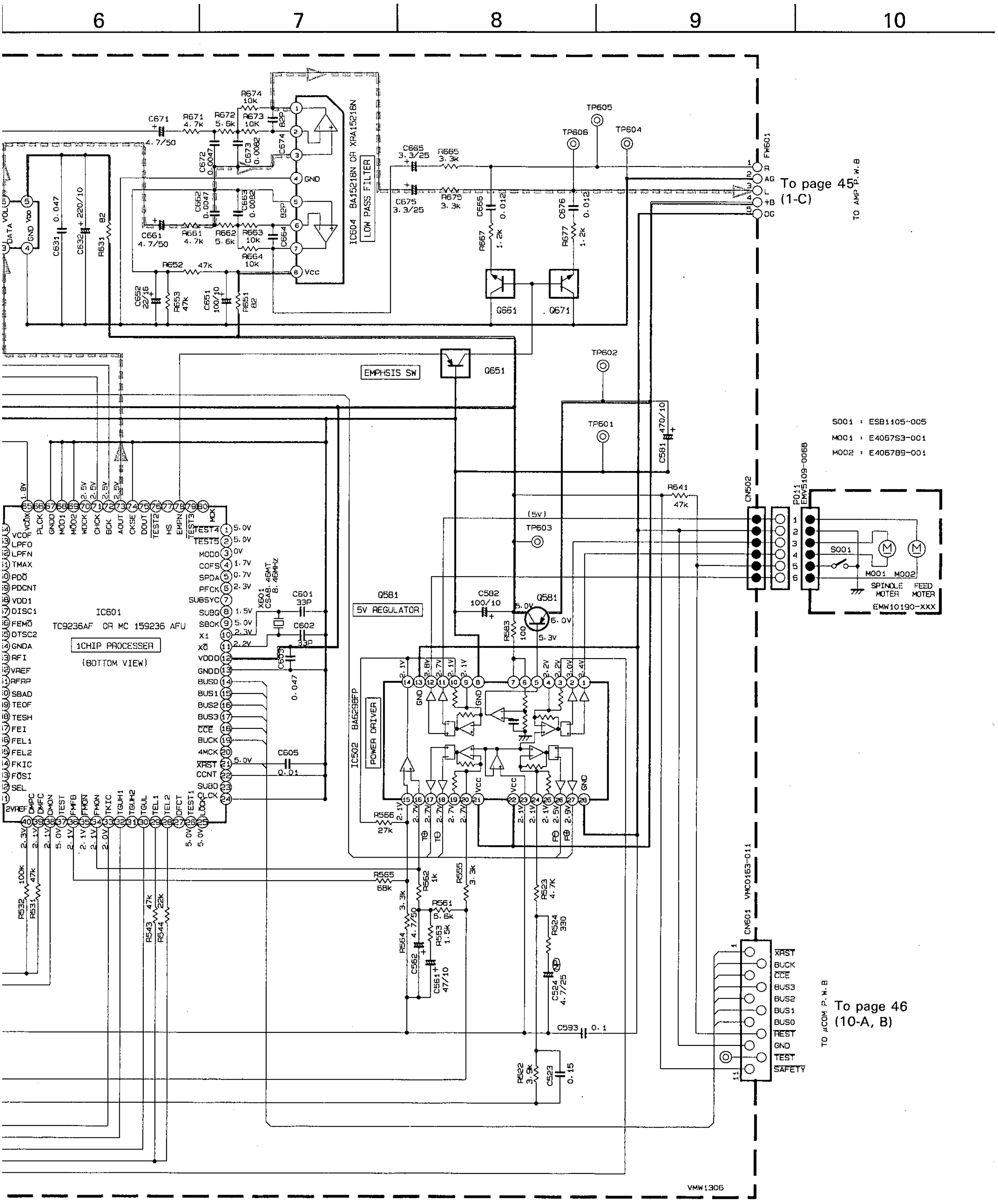
2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/6W ±5% CARBON RESISTOR.
ALL RESISTANCE VALUES ARE IN OHM(Ω).
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
ALL CAPACITANCE VALUES ARE IN µF(P=pF).
ALL INDUCTANCE VALUES ARE IN µH(m=mH).
ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (µF)/RATED VOLTAGE (V).

(UF) UNFLAMMABLE CARBON RESISTOR
(MF) METAL FILM RESISTOR
(OMF) OXIDE METAL FILM RESISTOR
(LL) ±20% LOW LEAK CURRENT ELECTROLYTIC CAPACITOR
(NP) NON-POLARISED ELECTROLYTIC CAPACITOR
(PP) POLYPROPYLENE CAPACITOR
(PS) POLYSTYROL CAPACITOR

Q501 Q581	2SA952(L, K)
Q591	2SA1309(R, S) OR 2SA1175(HFE) OR 2SA933S(RS)
Q651	UN4115 OR DTA114TS
Q661 Q671	UN4215 OR DTC114TS



)H7063-006CV



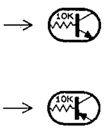


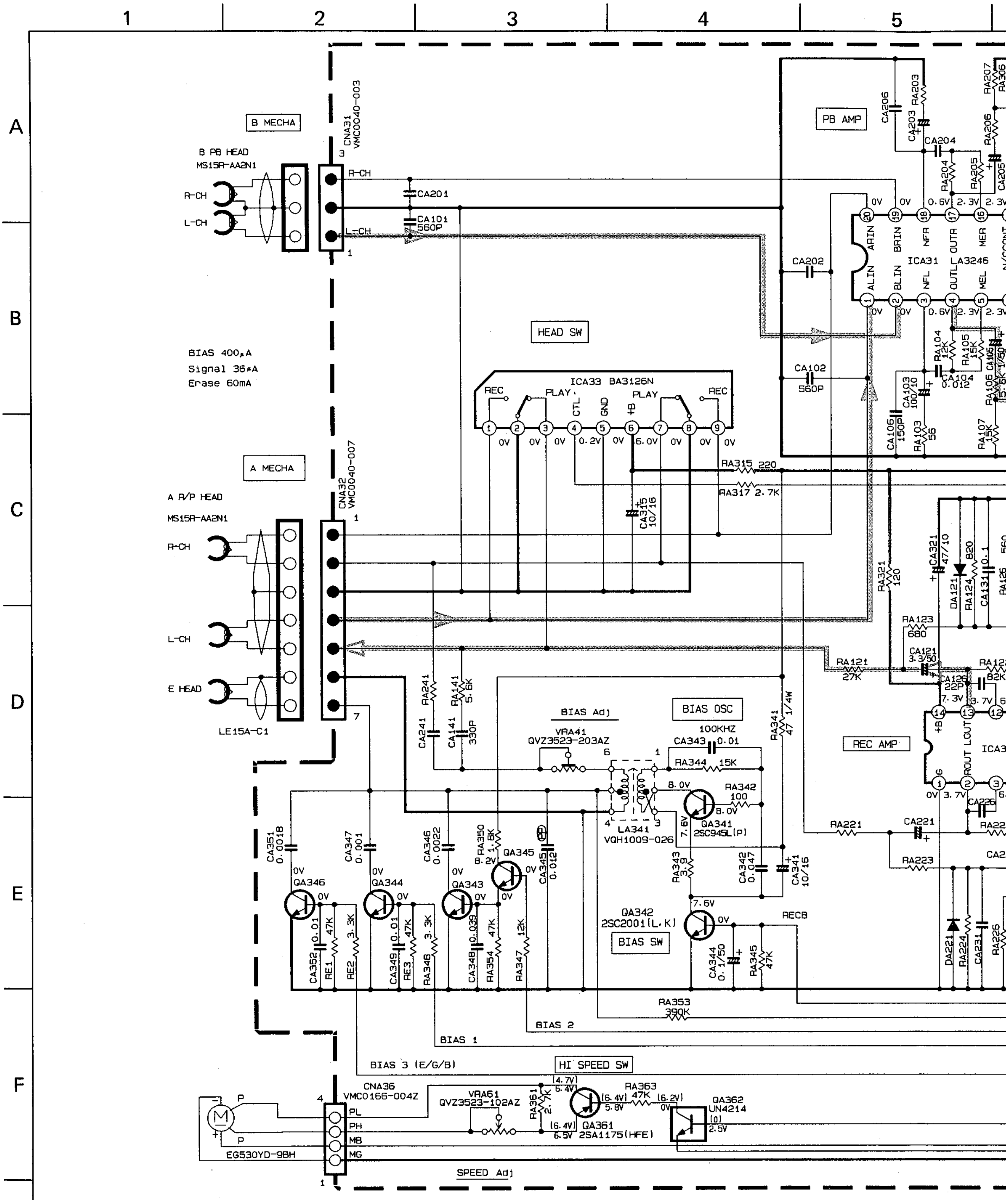
Fig. 12-1

CD Degital signal

CD Analoge signal

+B LINE

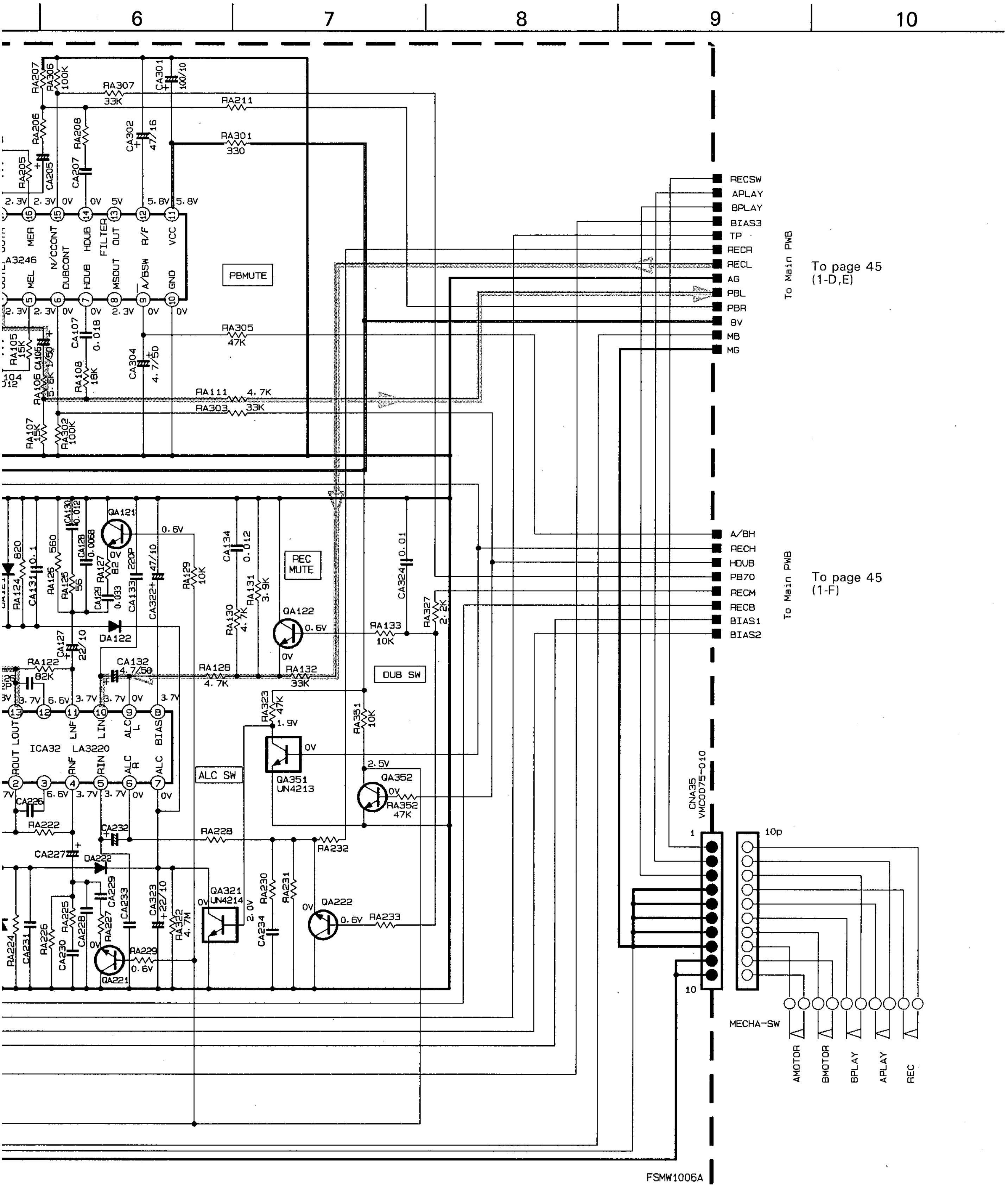
■ Pre-Amplifier Circuit: Drawing No. VDH7063-006RW



NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
CONDITION : TAPE MODE A MECHA PB.
CONDITION : HIGH SPEED REC IN ( )

2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/6W ±5% CARBON
ALL RESISTANCE VALUES ARE IN OHM(Ω).
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
ALL CAPACITANCE VALUES ARE IN μF(P=pF).
ALL INDUCTANCE VALUES ARE IN μH(m=mH).
ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μ
ALL DIODES ARE 1SS254T OR 1SS133.
ALL TRANSISTORS ARE 2SC2785(E,F)



5% CARBON RESISTOR.

CAPACITOR.

CITANCE (µF)/RATED VOLTAGE (V).

Fig. 12-2

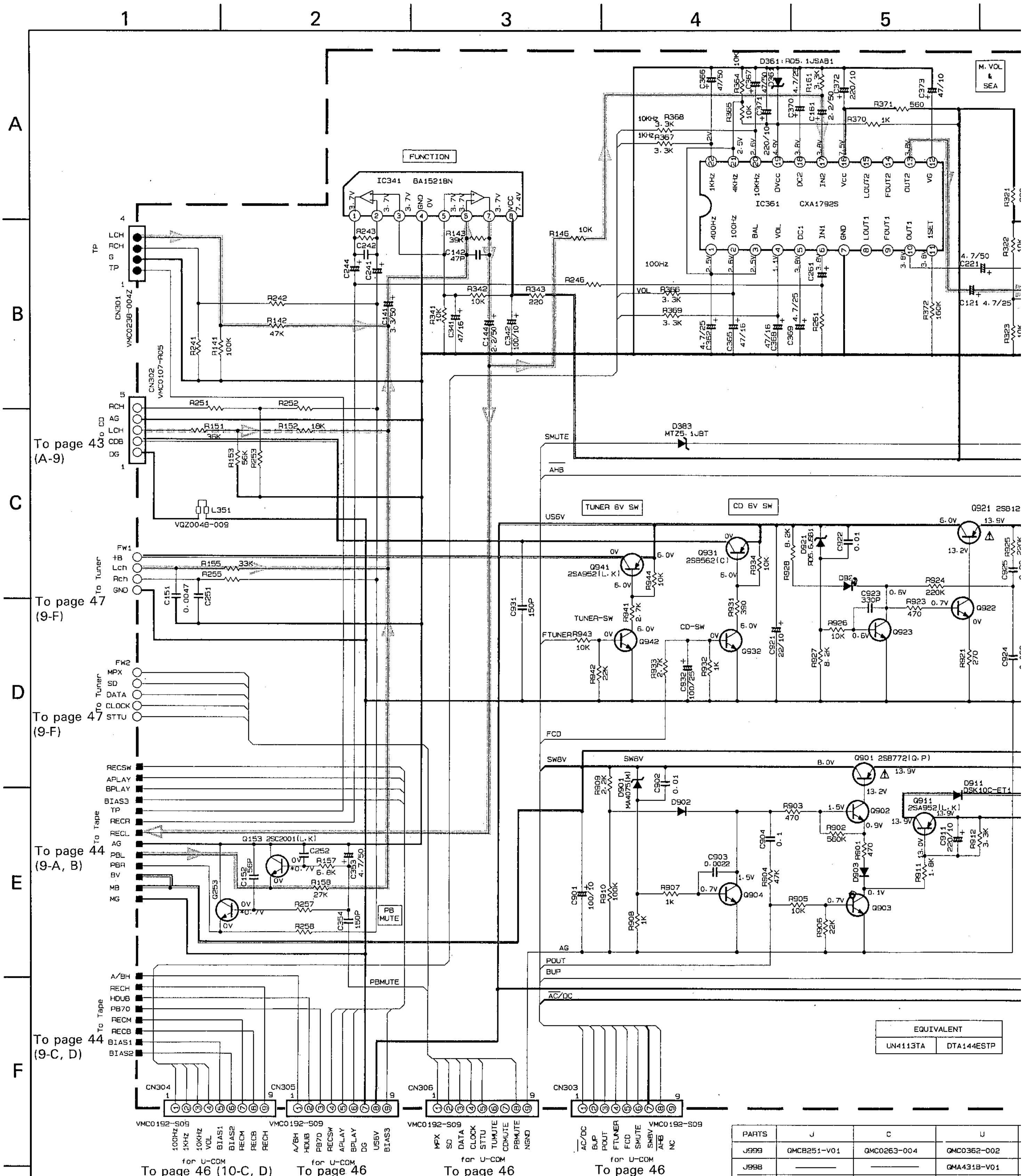
	R1	R2	
UN4213	47k	47k	DTC144E
UN4214	10k	47k	DTC114Y

Tape/playback signal

Recording signal

+B LINE

■ Power Amplifier Circuit: Drawing No. VDH7063-006AV

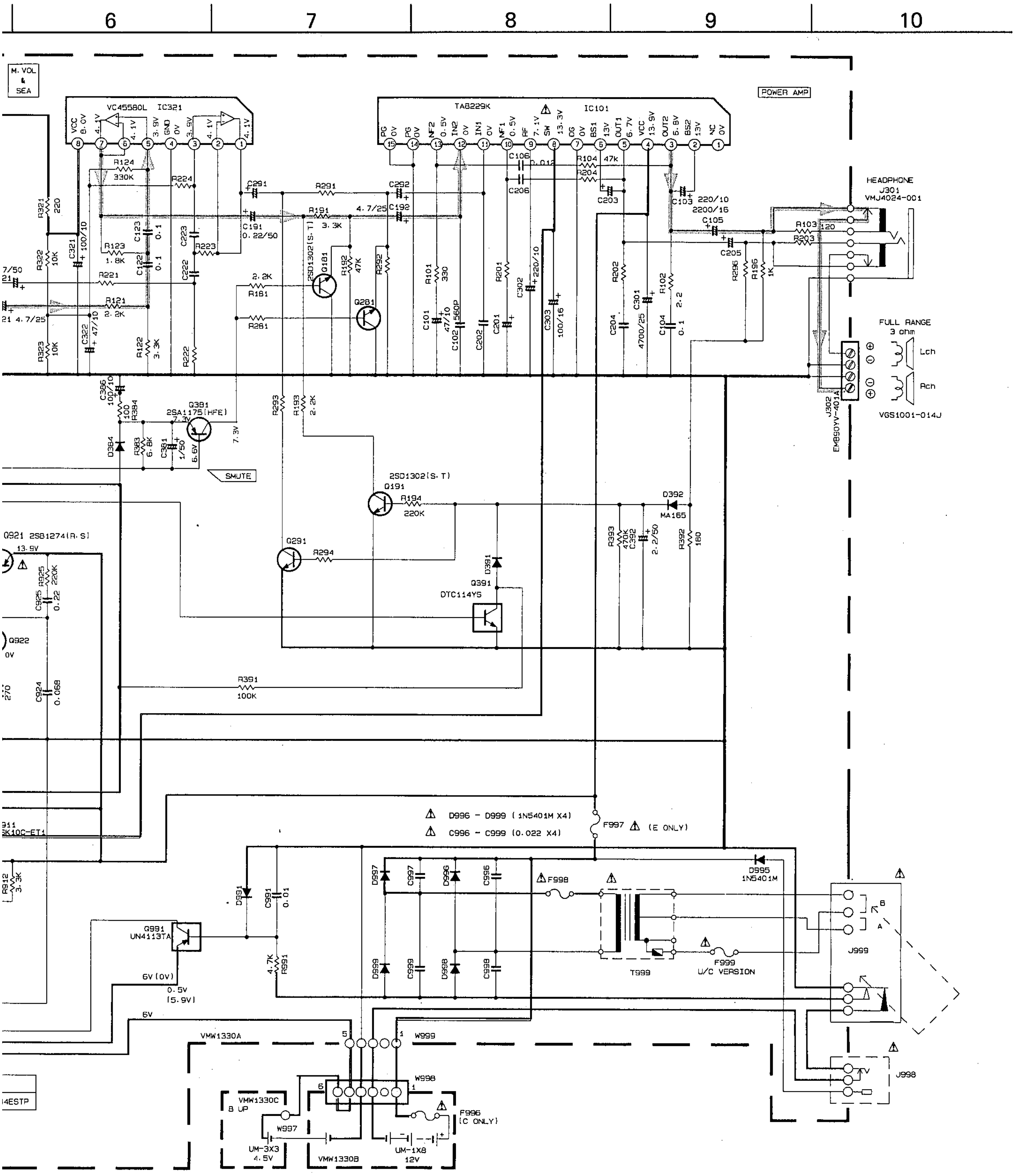


EQUIVALENT	
UN4113TA	DTA144ESTP

NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
CONDITION —— B MECHA PLAY MODE DC 12V
CONDITION : DC IN ( )
2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/6W ±5% CARBON RESISTOR.
ALL RESISTANCE VALUES ARE IN OHM(Ω).
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
ALL CAPACITANCE VALUES ARE IN μF(P=pF).
ALL INDUCTANCE VALUES ARE IN μH(m=mH).
ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
ALL DIODES ARE 1SS133 OR 1SS254T-77.
ALL TRANSISTORS ARE 2SC2785(F·E).

PARTS	J	C	U
J999	QMCB251-V01	QMC0263-004	QMC0362-002
J998	——	——	QMA431B-V01
D995	——	——	○
T999	VTP57P2-12BTT	VTP57A2-12C	VTP57P2-12H
F999	——	QMF51N2-R40J1	QMF51E2-R40J1
F998	QMF0007-5R0J1	——→	QMF51E2-5R0J1
F997	——	——	——
F996	——	QMF0007-5R0J1	——



U	E	B/G/GI
62-002	QMC0263-004	→
1B-V01	→	—
○	○	—
P2-12H	VTP57P2-12C	→
E2-R40J1	—	—
E2-5R0J1	→	→
—	QMF51E2-5R0J1	—
—	—	—

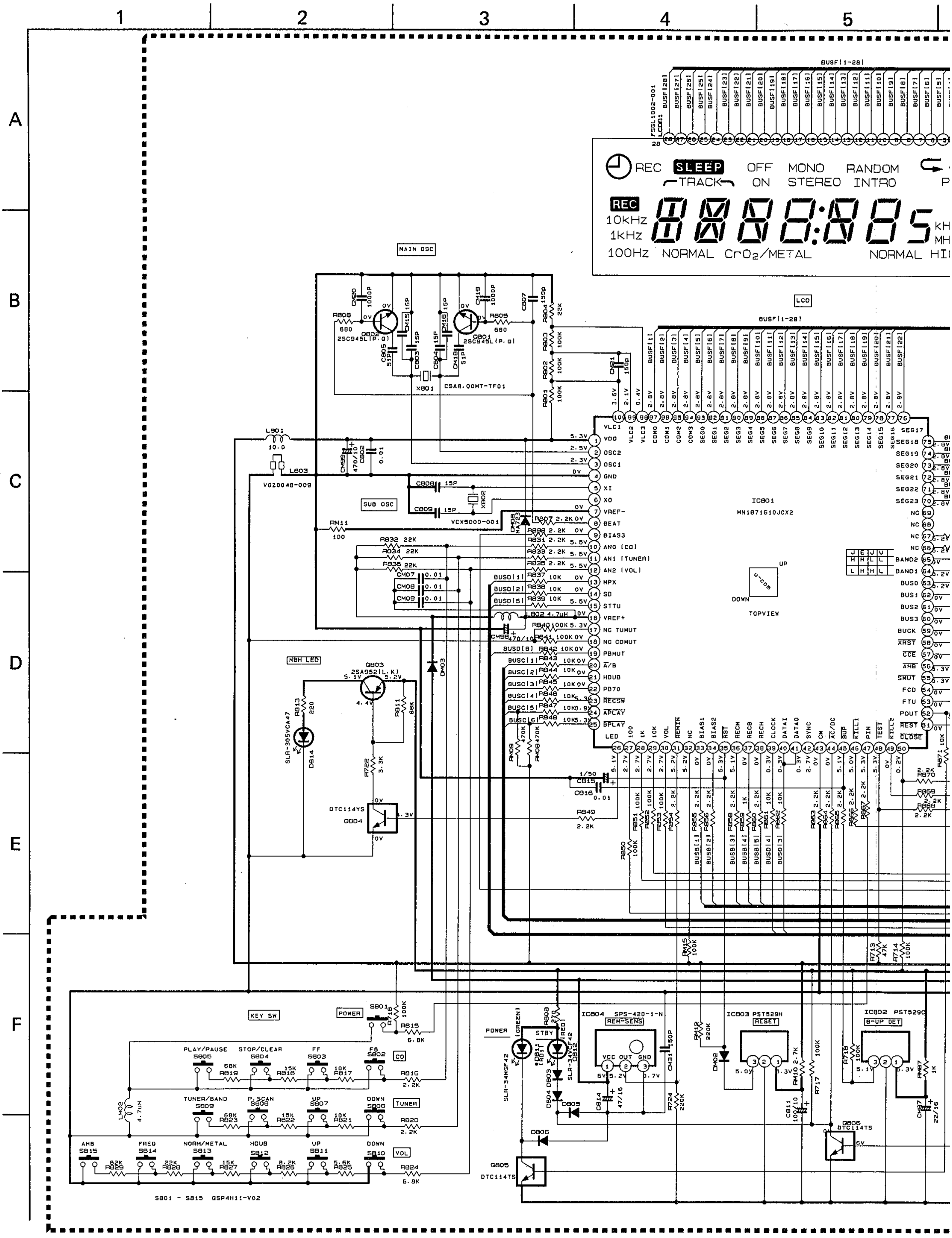
* J999

	A	B
E/G/GI/V	—	230V
B	—	240V
J/C	120V	—
U	110-127V	220-240V

Fig. 12-3

- CD Analog signal
- Radio signal
- Tape/playback signal
- +B LINE

■ System Micro Computer Circuit: Drawing No. VDH7063-006SV



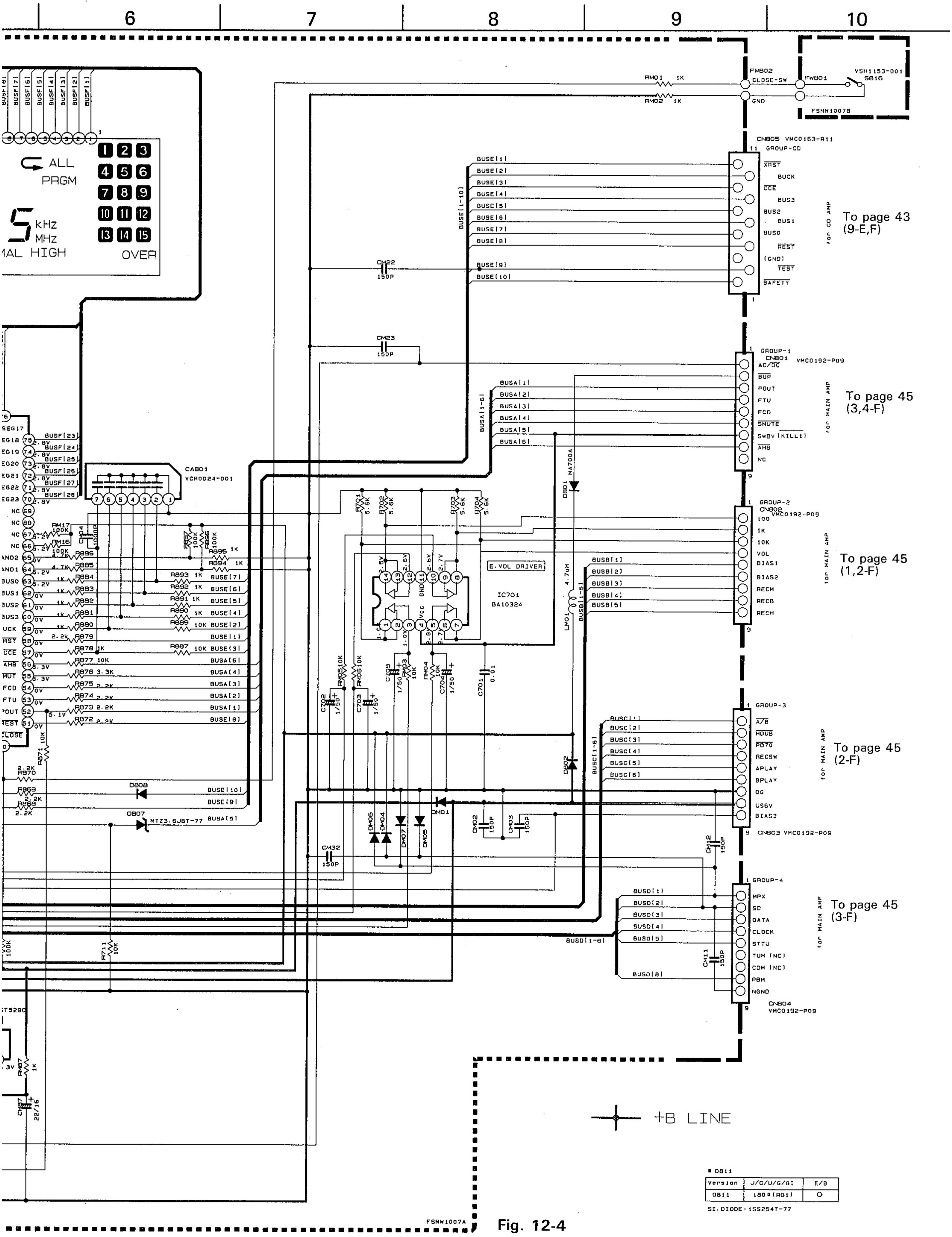
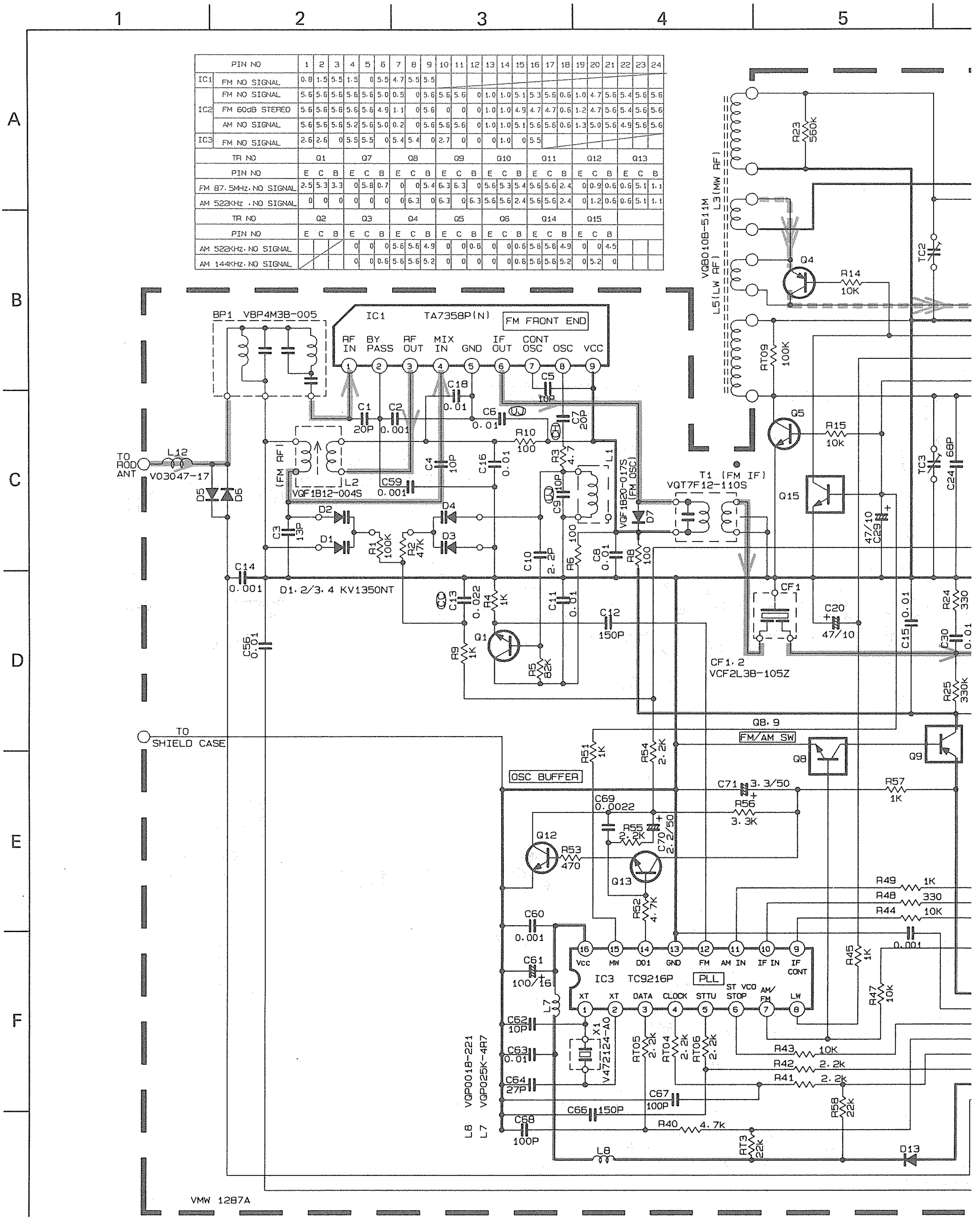
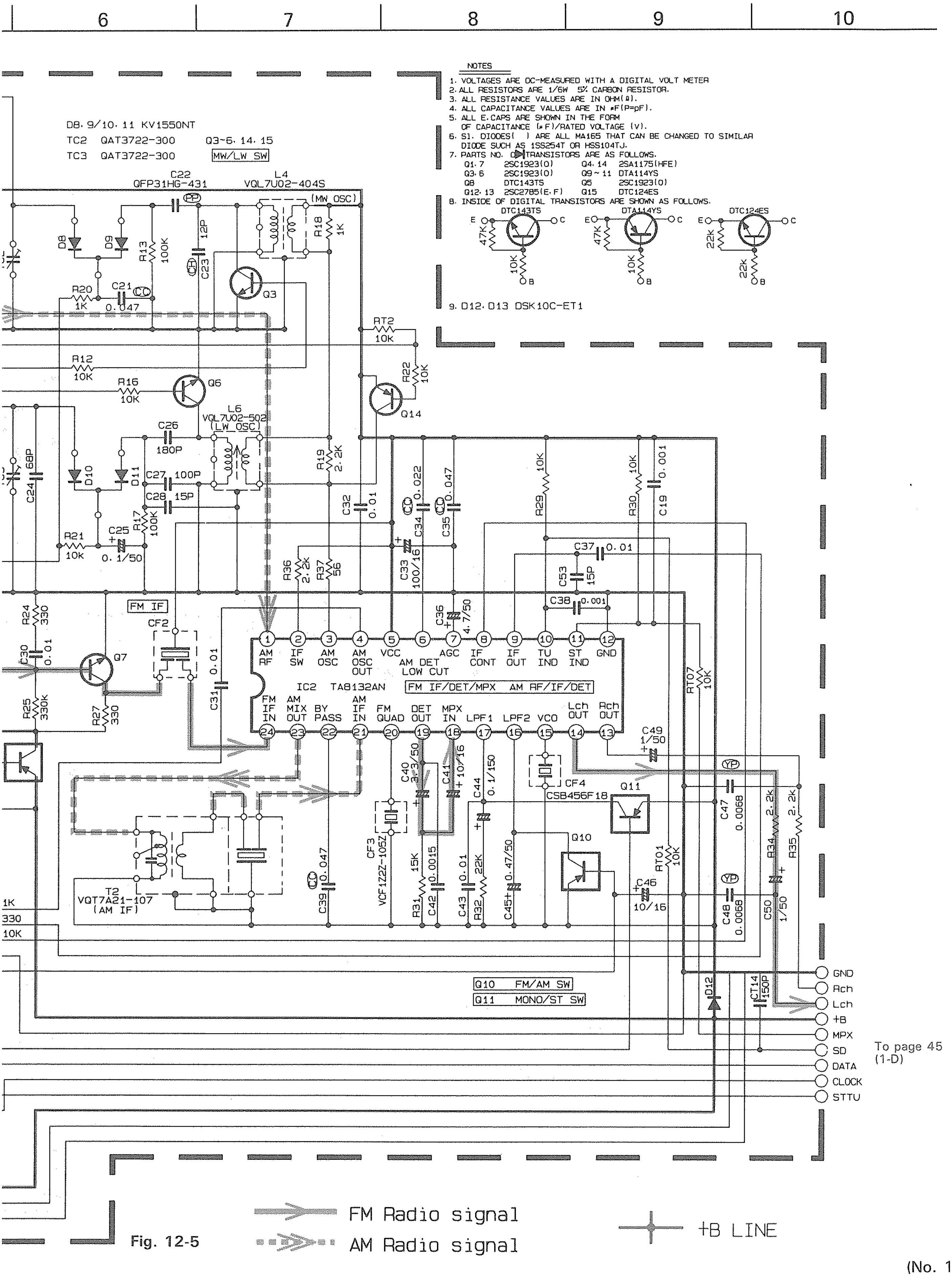

6
7
8
9
10
FW802
CLOSE-SW
GND
RM01 1K
RM02 1K
FW801
VSH1153-001
S816
FSMW10078
CN805 VMC0153-A11
GROUP-CD
XRST
BUCK
CCE
BUS3
BUS2
BUS1
BUS0
REST
(GND)
TEST
SAFETY
BUSE[1]
BUSE[2]
BUSE[3]
BUSE[4]
BUSE[5]
BUSE[6]
BUSE[7]
BUSE[8]
BUSE[9]
BUSE[10]
BUSE[1-10]
for CD AMP
To page 43
(9-E,F)
CM22
150P
CM23
150P
GROUP-1
CN801
VMC0192-P09
AC/DC
BUP
POUT
FTU
FCD
SMUTE
5W8V (KILL1)
AHB
NC
BUSA[1]
BUSA[2]
BUSA[3]
BUSA[4]
BUSA[5]
BUSA[6]
BUSA[1-6]
for MAIN AMP
To page 45
(3,4-F)
D801
MA700A
GROUP-2
CN802
VMC0192-P09
100
1K
10K
VOL
BIAS1
BIAS2
RECH
RECB
RECH
BUSB[1]
BUSB[2]
BUSB[3]
BUSB[4]
BUSB[5]
BUSB[1-5]
LM01
4.7uH
for MAIN AMP
To page 45
(1,2-F)
E.VOL DRIVER
IC701
BA10324
R701 5.6K
R702 5.6K
R703 5.6K
R704 5.6K
RM05 10K
RM06 10K
RM03 10K
RM04 10K
C702 1/50
C703 1/50
C705 1/50
C704 1/50
C701 0.01
GROUP-3
A/B
HDUB
PB70
RECSW
APLAY
BPLAY
OG
US6V
BIAS3
CN803 VMC0192-P09
BUSC[1]
BUSC[2]
BUSC[3]
BUSC[4]
BUSC[5]
BUSC[6]
BUSC[1-6]
D802
for MAIN AMP
To page 45
(2-F)
DM01
DM02
DM03
DM04
DM05
DM06
DM07
CM02 150P
CM03 150P
CM32 150P
CM12 150P
GROUP-4
MPX
SD
DATA
CLOCK
STTU
TUM (NC)
CDM (NC)
PBH
NGND
CN804
VMC0192-P09
BUSD[1]
BUSD[2]
BUSD[3]
BUSD[4]
BUSD[5]
BUSD[8]
BUSD[1-8]
CM11 150P
for MAIN AMP
To page 45
(3-F)
CA801
VCR0024-001
BUSF[1]
BUSF[2]
BUSF[3]
BUSF[4]
BUSF[5]
BUSF[6]
BUSF[7]
ALL
PRGM
kHz
MHz
AL HIGH
OVER
SEG17
SEG18
EG19
EG20
EG21
EG22
EG23
NC
AND2
AND1
BUS0
BUS1
BUS2
BUS3
UCK
RST
CCE
AHB
MUT
FCD
FTU
POUT
REST
CLOSE
BUSF[23]
BUSF[24]
BUSF[25]
BUSF[26]
BUSF[27]
BUSF[28]
RM17 100K
RM16 100K
R897 100K
R896 100K
R895 1K
R894 1K
R893 1K
R892 1K
R891 1K
R890 1K
R889 10K
R887 10K
R886
R885
R884
R883
R882
R881
R880
R879
R878 1K
R877 10K
R876 3.3K
R875 2.2K
R874 2.2K
R873 2.2K
R872 2.2K
R871 10K
R870 2.2K
R869 2.2K
R868 2.2K
D808
D807
MTZ3.6JBT-77
R711 10K
RM87 1K
CM87 22/16
FSMW1007A
+B LINE
■ 0811
Version | J/C/U/G/GI | E/B
0811 | 180P(R01) | O
SI.DIODE: 1SS254T-77

Fig. 12-4

Tuner Circuit: Drawing No. VDH7063-0055tTW

	PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IC1	FM NO SIGNAL	0.8	1.5	5.5	1.5	0	5.5	4.7	5.5	5.5															
IC2	FM NO SIGNAL	5.6	5.6	5.6	5.6	5.6	5.0	0.5	0	5.6	5.6	5.6	0	1.0	1.0	5.1	5.3	5.6	0.6	1.0	4.7	5.6	5.4	5.6	5.6
	FM 60dB STEREO	5.6	5.6	5.6	5.6	5.6	4.9	1.1	0	5.6	0	0	0	1.0	1.0	4.9	4.7	4.7	0.6	1.2	4.7	5.6	5.4	5.6	5.6
	AM NO SIGNAL	5.6	5.6	5.6	5.2	5.6	5.0	0.2	0	5.6	5.6	5.6	0	1.0	1.0	5.1	5.6	5.6	0.6	1.3	5.0	5.6	4.9	5.6	5.6
IC3	FM NO SIGNAL	2.6	2.6	0	5.5	5.5	0	5.4	5.4	0	2.7	0	0	0	1.0	0	5.5								
	TR NO	Q1			Q7			Q8			Q9			Q10			Q11			Q12			Q13		
	PIN NO	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
	FM 87.5MHz, NO SIGNAL	2.5	5.3	3.3	0	5.8	0.7	0	0	5.4	6.3	6.3	0	5.6	5.3	5.4	5.6	5.6	2.4	0	0.9	0.6	0.6	5.1	1.1
	AM 522KHz , NO SIGNAL	0	0	0	0	0	0	0	6.3	0	6.3	0	6.3	5.6	5.6	2.4	5.6	5.6	2.4	0	1.2	0.6	0.6	5.1	1.1
	TR NO	Q2			Q3			Q4			Q5			Q6			Q14			Q15					
	PIN NO	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B			
	AM 522KHz, NO SIGNAL				0	0	0	5.6	5.6	4.9	0	0	0.6	0	0	0.6	5.6	5.6	4.9	0	0	4.5			
	AM 144KHz, NO SIGNAL				0	0	0.6	5.6	5.6	5.2	0	0	0	0	0	0.6	5.6	5.6	5.2	0	5.2	0			





NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
2. ALL RESISTORS ARE 1/6W 5% CARBON RESISTOR.
3. ALL RESISTANCE VALUES ARE IN OHM(Ω).
4. ALL CAPACITANCE VALUES ARE IN μF(P=pF).
5. ALL E.CAPS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
6. S1. DIODES( ) ARE ALL MA165 THAT CAN BE CHANGED TO SIMILAR DIODE SUCH AS 1SS254T OR HSS104TJ.
7. PARTS NO. OF TRANSISTORS ARE AS FOLLOWS.

Q1·7	2SC1923(O)	Q4·14	2SA1175(HFE)
Q3·6	2SC1923(O)	Q9 ~ 11	DTA114YS
Q8	DTC143TS	Q5	2SC1923(O)
Q12·13	2SC2785(E·F)	Q15	DTC124ES

8. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.

9. D12·D13 DSK10C-ET1

To page 45 (1-D)

Fig. 12-5

13. Location of P.C. Board Parts

■ **Main P.C. Board : Block No. 01**

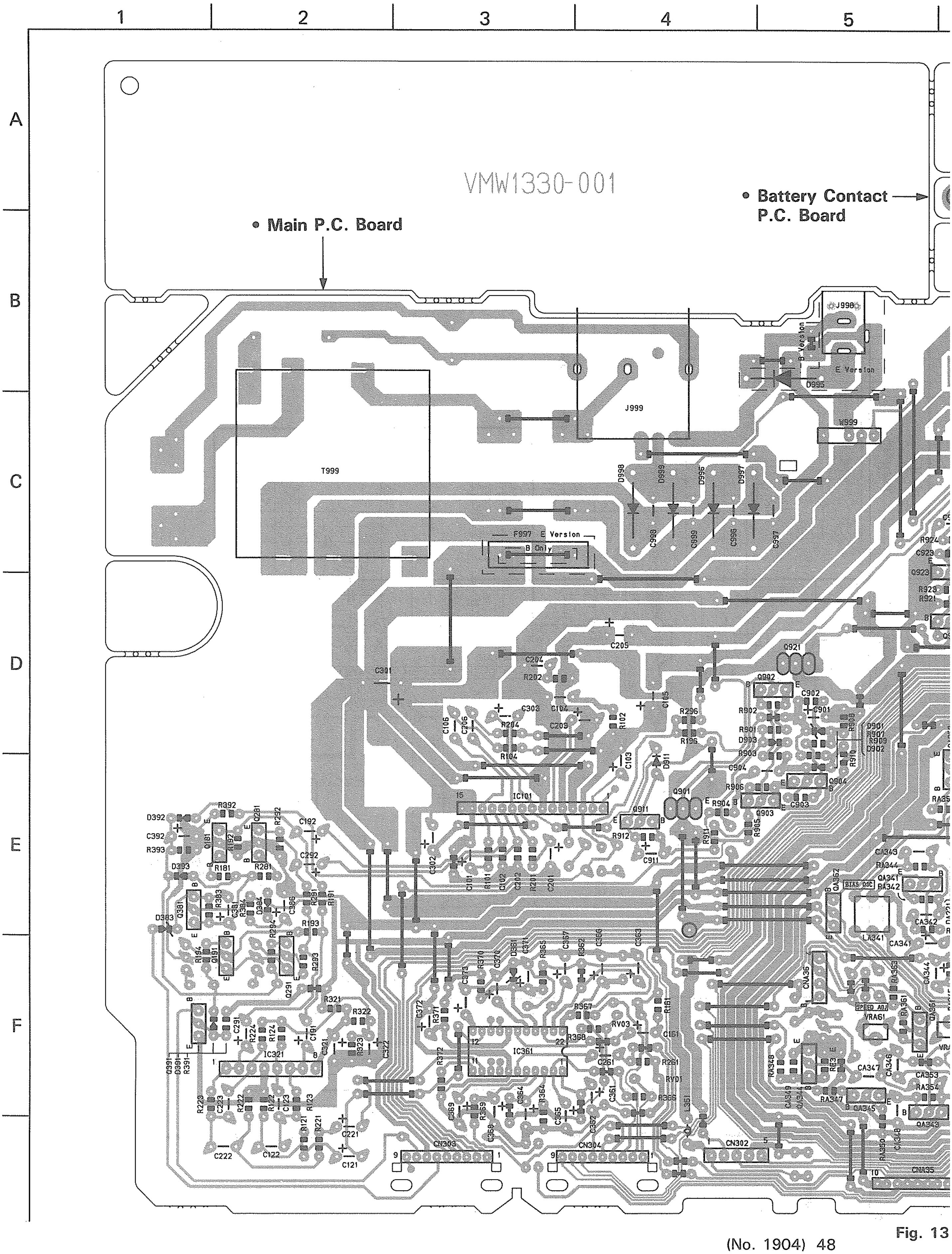


Fig. 13

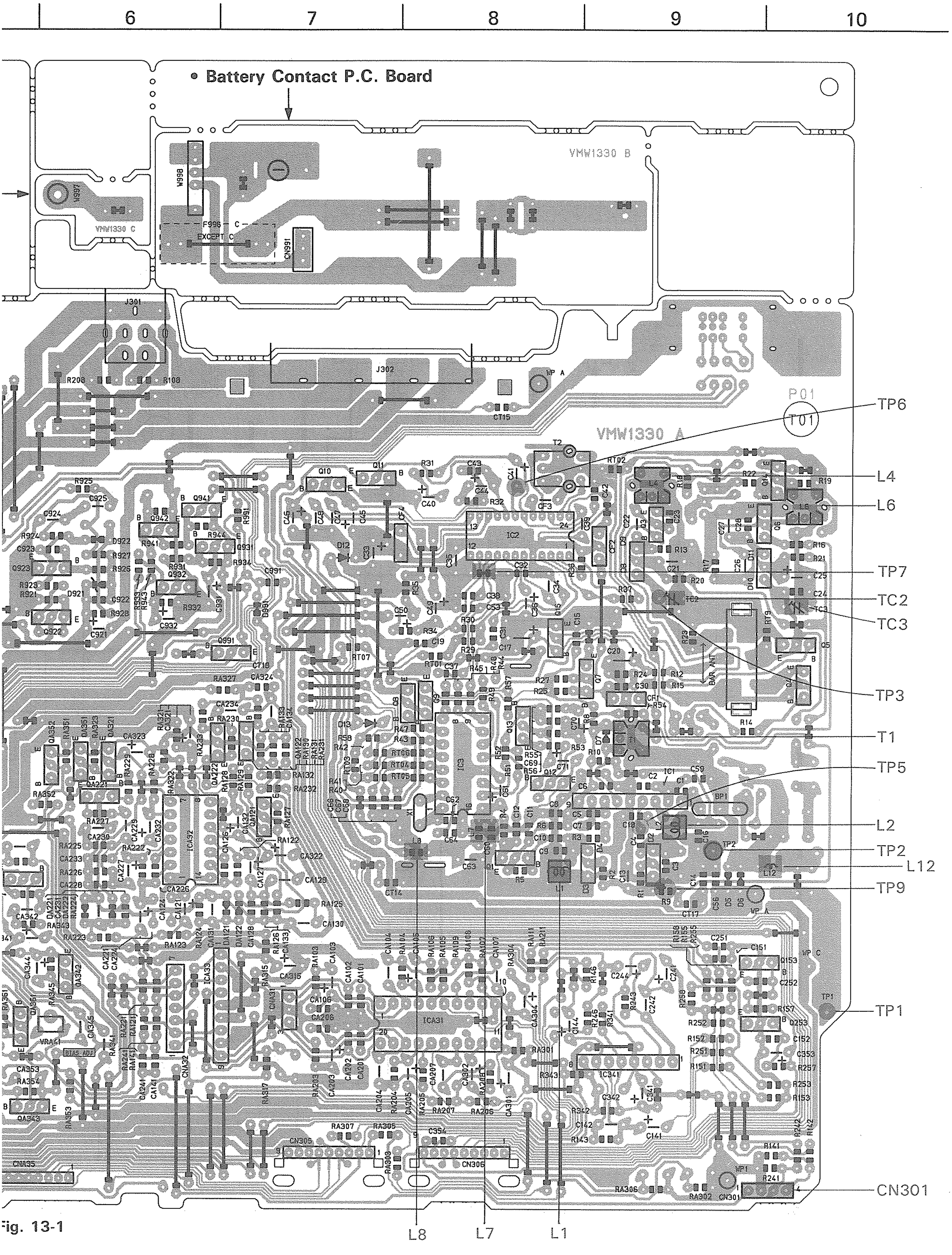
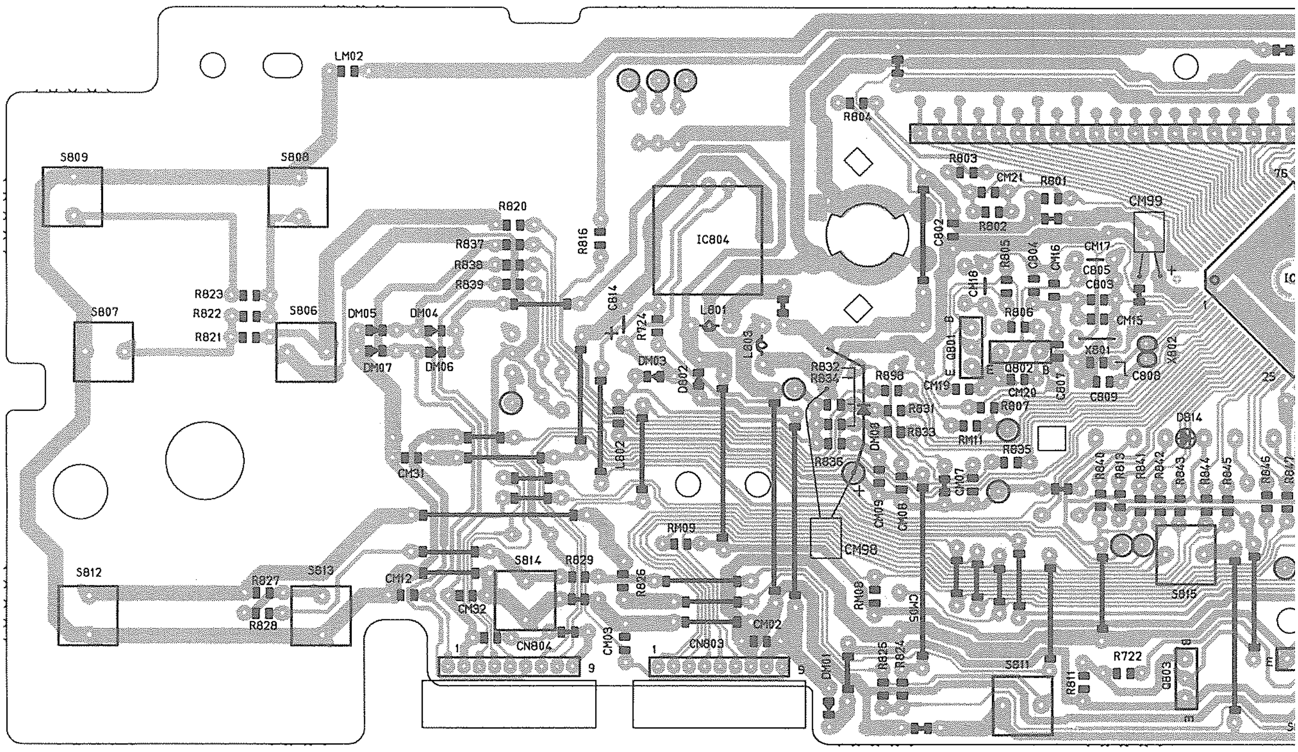

6
7
8
9
10
Battery Contact P.C. Board
VMW1330 B
VMW1330 C
VMW1330 A
TP6
L4
L6
TP7
TC2
TC3
TP3
T1
TP5
L2
TP2
L12
TP9
TP1
CN301
L8
L7
L1

Fig. 13-1

■ System Micro Computer P.C. Board : Block No. 0 3



■ CD Amplifier P.C. Board : Block No. 0 2

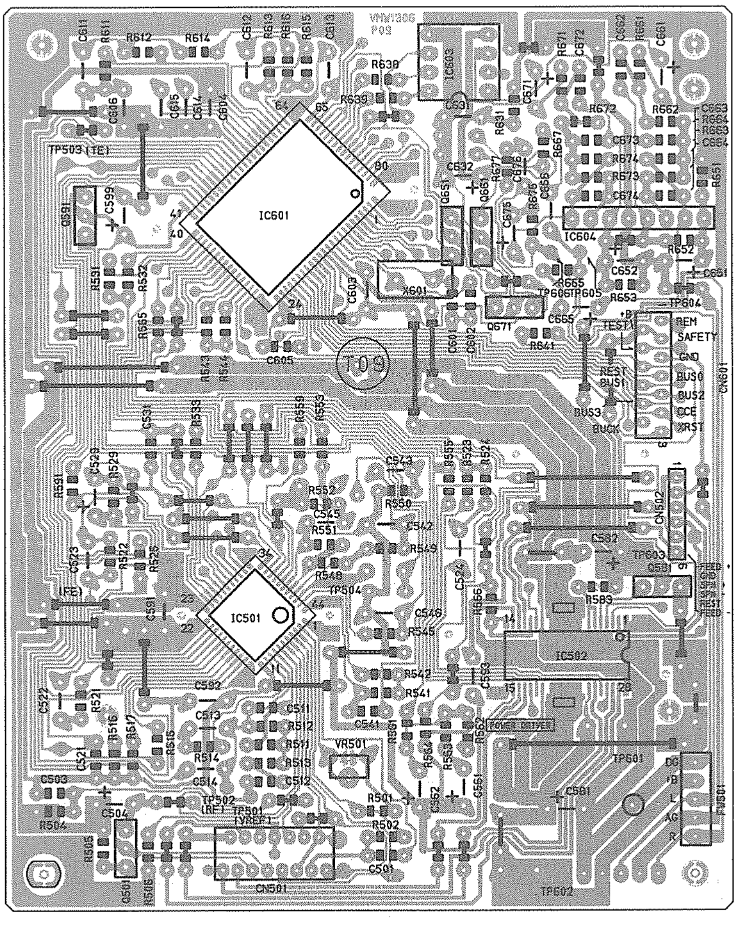
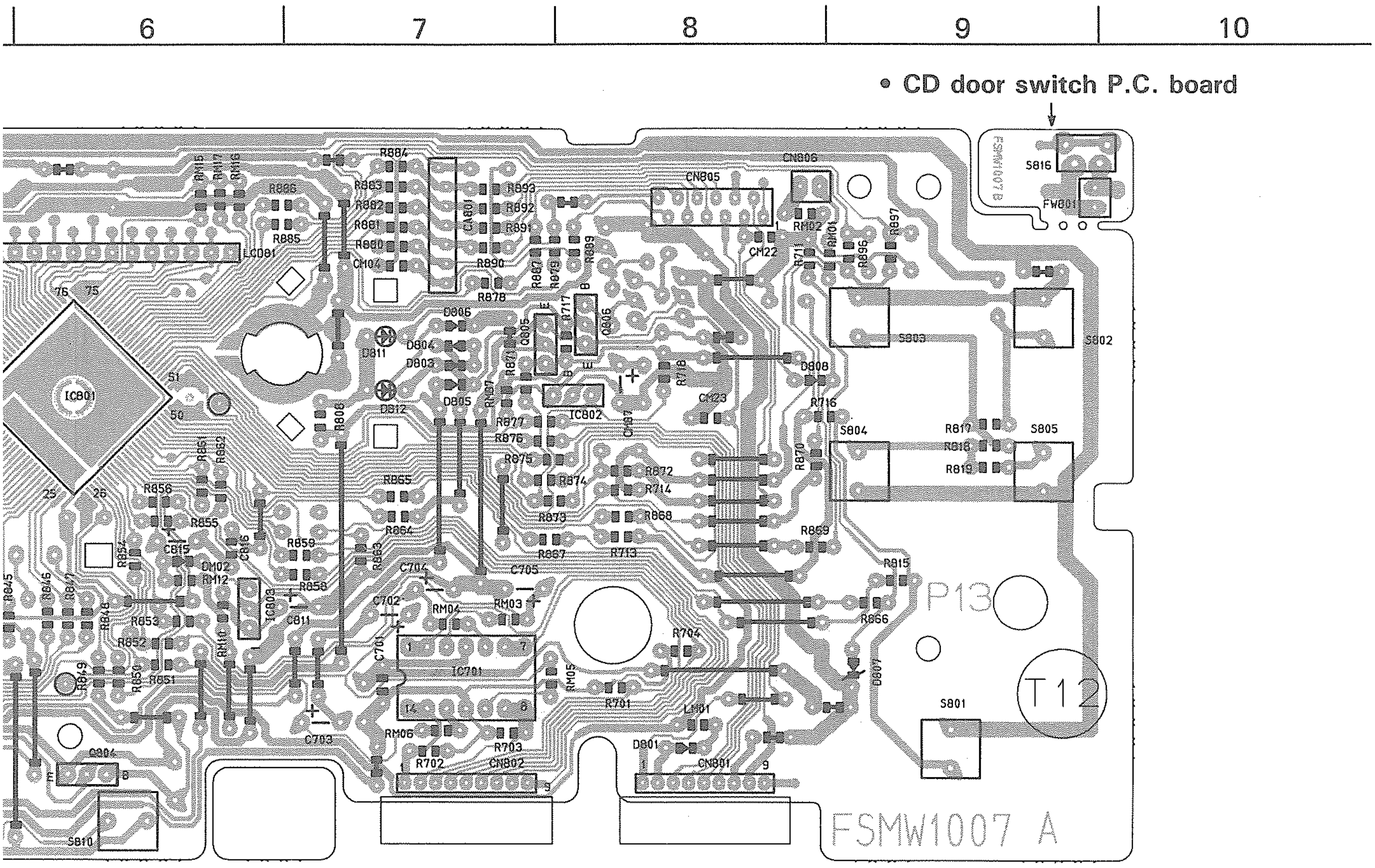


Fig. 13-3



6
7
8
9
10
• CD door switch P.C. board
FSMW1007 B
S816
FW801
CN805
CN806
IC801
IC802
IC701
IC803
LCD01
S802
S803
S804
S805
S801
S810
TP13
T12
FSMW1007 A
CN801
CN802
D807
D808

Fig. 13-2

14. Electrical Parts List

● Main P.C. Board

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	BP 1	VBP4M3B-005	B.PASS FILTER	BPF	
	C 1	QCT30CH-200Y	C.CAPACITOR	20PF 5% 50V	
	C 2	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
	C 3	QCSB1HJ-130Y	C.CAPACITOR	13PF 5% 50V	
	C 4	QCS11HJ-100	C.CAPACITOR	10PF 5% 50V	
	C 5	QCT05UJ-100	C.CAPACITOR	10PF 5% 50V	
	C 6	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 7	QCT30CH-200Y	C.CAPACITOR	20PF 5% 50V	
	C 8	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 9	QCT05UJ-100	C.CAPACITOR	10PF 5% 50V	
	C 10	QCSB1HK-2R2Y	C.CAPACITOR	2.2PF 10% 50V	
	C 11	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 12	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	C 13	QCC11EM-223V	C.CAPACITOR	.022MF 20% 25V	
	C 14	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
	C 15	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 16	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 18	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 19	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
	C 20	QETC1AM-476Z	E.CAPACITOR	47MF 20% 10V	
	C 21	QCC11EM-473V	C.CAPACITOR	.047MF 20% 25V	
	C 22	QFP31HG-431ZM	PP.CAPACITOR	430PF 2% 50V	
	C 23	QCT30CH-120Y	C.CAPACITOR	12PF 5% 50V	
	C 24	QCS11HJ-680	C.CAPACITOR	68PF 5% 50V	
	C 25	QETC1HM-104Z	E.CAPACITOR	.10MF 20% 50V	
	C 26	QCS11HJ-181	C.CAPACITOR	180PF 5% 50V	
	C 27	QCS11HJ-101	C.CAPACITOR	100PF 5% 50V	
	C 28	QCS11HJ-150	C.CAPACITOR	15PF 5% 50V	
	C 29	QETC1AM-476Z	E.CAPACITOR	47MF 20% 10V	
	C 30	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 31	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 32	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 33	QETC1CM-107ZN	E.CAPACITOR	100MF 20% 16V	
	C 34	QCC11EM-223V	C.CAPACITOR	.022MF 20% 25V	
	C 35	QCC11EM-473V	C.CAPACITOR	.047MF 20% 25V	
	C 36	QETC1HM-475ZN	E.CAPACITOR	4.7MF 20% 50V	
	C 37	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 38	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
	C 39	QCC11EM-473V	C.CAPACITOR	.047MF 20% 25V	
	C 40	QETC1HM-335Z	E.CAPACITOR	3.3MF 20% 50V	
	C 41	QETC1CM-106Z	E.CAPACITOR	10MF 20% 16V	
	C 42	QCXB1CM-152Y	C.CAPACITOR	1500PF 20% 16V	
	C 43	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 44	QETC1HM-104Z	E.CAPACITOR	.10MF 20% 50V	
	C 45	QETC1HM-474ZN	E.CAPACITOR	.47MF 20% 50V	
	C 46	QETC1CM-106Z	E.CAPACITOR	10MF 20% 16V	
	C 47	QCY31HK-682Z	C.CAPACITOR	6800PF 10% 50V	
	C 48	QCY31HK-682Z	C.CAPACITOR	6800PF 10% 50V	
	C 49	QETC1HM-105Z	E.CAPACITOR	1.0MF 20% 50V	
	C 50	QETC1HM-105Z	E.CAPACITOR	1.0MF 20% 50V	
	C 53	QCT30CH-150Y	C.CAPACITOR	15PF 5% 50V	
	C 56	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 59	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
	C 60	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
	C 61	QETC1CM-107ZN	E.CAPACITOR	100MF 20% 16V	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 62	QCS11HJ-100	C.CAPACITOR	10PF 5% 50V	
	C 63	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 64	QCS11HJ-270	C.CAPACITOR	27PF 5% 50V	
	C 66	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	C 67	QCBB1HK-101Y	C.CAPACITOR	100PF 10% 50V	
	C 68	QCBB1HK-101Y	C.CAPACITOR	100PF 10% 50V	
	C 69	QCXB1CM-222Y	C.CAPACITOR	2200PF 20% 16V	
	C 70	QETC1HM-225ZN	E.CAPACITOR	2.2MF 20% 50V	
	C 71	QETC1HM-335Z	E.CAPACITOR	3.3MF 20% 50V	
	C 101	QETC1AM-476ZN	E.CAPACITOR	47MF 20% 10V	
	C 102	QCBB1HK-561Y	C.CAPACITOR	560PF 10% 50V	
	C 103	QETC1AM-227ZM	E.CAPACITOR	220MF 20% 10V	
	C 104	QCC11EM-104V	C.CAPACITOR	.10MF 20% 25V	
	C 105	QETB1CM-228N	E.CAPACITOR	2200MF 20% 16V	
	C 106	QFLC1HJ-123ZM	M.CAPACITOR	.012MF 5% 50V	
	C 121	QETC1EM-475ZM	E.CAPACITOR	4.7MF 20% 25V	
	C 122	QFV41HJ-104	FILM CAPACITOR	.10MF 5% 50V	
	C 123	QFV41HJ-104	FILM CAPACITOR	.10MF 5% 50V	
	C 141	QEK41HM-335	E.CAPACITOR	3.3MF 20% 50V	
	C 142	QCS11HJ-470	C.CAPACITOR	47PF 5% 50V	
	C 144	QETC1HM-225ZN	E.CAPACITOR	2.2MF 20% 50V	
	C 151	QCXB1CM-472Y	C.CAPACITOR	4700PF 20% 16V	
	C 152	QCS11HJ-560	C.CAPACITOR	56PF 5% 50V	
	C 161	QETC1HM-225ZN	E.CAPACITOR	2.2MF 20% 50V	
	C 191	QETC1HM-224ZN	E.CAPACITOR	.22MF 20% 50V	
	C 192	QETC1EM-475	E.CAPACITOR	4.7MF 20% 25V	
	C 201	QETC1AM-476ZN	E.CAPACITOR	47MF 20% 10V	
	C 202	QCBB1HK-561Y	C.CAPACITOR	560PF 10% 50V	
	C 203	QETC1AM-227ZM	E.CAPACITOR	220MF 20% 10V	
	C 204	QCC11EM-104V	C.CAPACITOR	.10MF 20% 25V	
	C 205	QETB1CM-228N	E.CAPACITOR	2200MF 20% 16V	
	C 206	QFLC1HJ-123ZM	M.CAPACITOR	.012MF 5% 50V	
	C 221	QETC1EM-475ZM	E.CAPACITOR	4.7MF 20% 25V	
	C 222	QFV41HJ-104	FILM CAPACITOR	.10MF 5% 50V	
	C 223	QFV41HJ-104	FILM CAPACITOR	.10MF 5% 50V	
	C 241	QEK41HM-335	E.CAPACITOR	3.3MF 20% 50V	
	C 242	QCS11HJ-470	C.CAPACITOR	47PF 5% 50V	
	C 244	QETC1HM-225ZN	E.CAPACITOR	2.2MF 20% 50V	
	C 251	QCXB1CM-472Y	C.CAPACITOR	4700PF 20% 16V	
	C 252	QCS11HJ-560	C.CAPACITOR	56PF 5% 50V	
	C 261	QETC1HM-225ZN	E.CAPACITOR	2.2MF 20% 50V	
	C 291	QETC1HM-224ZN	E.CAPACITOR	.22MF 20% 50V	
	C 292	QETC1EM-475	E.CAPACITOR	4.7MF 20% 25V	
	C 301	QETB1EM-478E	E.CAPACITOR	4700MF 20% 25V	
	C 302	QETA1CM-227	E.CAPACITOR	220MF 20% 16V	
	C 303	QETC1CM-107ZN	E.CAPACITOR	100MF 20% 16V	
	C 321	QETC1AM-107ZN	E.CAPACITOR	100MF 20% 10V	
	C 322	QETC1CM-476Z	E.CAPACITOR	47MF 20% 16V	
	C 341	QEK41CM-476	E.CAPACITOR	47MF 20% 16V	
	C 342	QER41AM-107	E.CAPACITOR	100MF 20% 10V	
	C 353	QETC1HM-475ZN	E.CAPACITOR	4.7MF 20% 50V	
	C 354	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	C 362	QEK41EM-475	E.CAPACITOR	4.7MF 20% 25V	
	C 363	QETC1EM-475	E.CAPACITOR	4.7MF 20% 25V	
	C 364	QEK41EM-475	E.CAPACITOR	4.7MF 20% 25V	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 365	QEK41CM-476	E.CAPACITOR	47MF 20% 16V	
	C 366	QETC1HM-476ZN	E.CAPACITOR	47MF 20% 50V	
	C 367	QETC1HM-476ZN	E.CAPACITOR	47MF 20% 50V	
	C 368	QEK41CM-476	E.CAPACITOR	47MF 20% 16V	
	C 369	QEK41EM-475	E.CAPACITOR	4.7MF 20% 25V	
	C 370	QETC1EM-475	E.CAPACITOR	4.7MF 20% 25V	
	C 371	QETC1AM-227ZN	E.CAPACITOR	220MF 20% 10V	
	C 372	QETC1AM-227ZN	E.CAPACITOR	220MF 20% 10V	
	C 373	QETC1AM-476ZN	E.CAPACITOR	47MF 20% 10V	
	C 381	QETC1HM-105ZN	E.CAPACITOR	1.0MF 20% 50V	
	C 386	QETC1AM-107ZN	E.CAPACITOR	100MF 20% 10V	
	C 392	QETC1HM-225ZN	E.CAPACITOR	2.2MF 20% 50V	
	C 901	QETC1AM-107ZN	E.CAPACITOR	100MF 20% 10V	
	C 902	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 903	QCXB1CM-222Y	C.CAPACITOR	2200PF 20% 16V	
	C 904	QCC11EM-104V	C.CAPACITOR	.10MF 20% 25V	
	C 911	QETC1AM-227ZN	E.CAPACITOR	220MF 20% 10V	
	C 921	QETC1AM-226ZN	E.CAPACITOR	22MF 20% 10V	
	C 922	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 923	QCBB1HK-331Y	C.CAPACITOR	330PF 10% 50V	
	C 924	QFV71HJ-683ZM	FILM CAPACITOR	.068MF 5% 50V	
	C 925	QFV41HJ-224	FILM CAPACITOR	.22MF 5% 50V	
	C 931	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	C 932	QETC1EM-107ZN	E.CAPACITOR	100MF 20% 25V	
	C 991	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	C 996	QCF11HP-223	C.CAPACITOR	.022MF +100:-0%	
	C 997	QCF11HP-223	C.CAPACITOR	.022MF +100:-0%	
	C 998	QCF11HP-223	C.CAPACITOR	.022MF +100:-0%	
	C 999	QCF11HP-223	C.CAPACITOR	.022MF +100:-0%	
	CA101	QCBB1HK-561Y	C.CAPACITOR	560PF 10% 50V	
	CA102	QCBB1HK-561Y	C.CAPACITOR	560PF 10% 50V	
	CA103	QEK61AM-107ZM	E.CAPACITOR	100MF 20% 10V	
	CA104	QFN41HJ-123	M.CAPACITOR	.012MF 5% 50V	
	CA105	QEK41HM-105	E.CAPACITOR	1.0MF 20% 50V	
	CA106	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	CA107	QFLC1HJ-183ZM	M.CAPACITOR	.018MF 5% 50V	
	CA121	QETC1HM-335ZN	E.CAPACITOR	3.3MF 20% 50V	
	CA126	QCS11HJ-220	C.CAPACITOR	22PF 5% 50V	
	CA127	QETC1AM-226ZN	E.CAPACITOR	22MF 20% 10V	
	CA128	QCXB1CM-682Y	C.CAPACITOR	6800PF 20% 16V	
	CA129	QFLC1HJ-333ZM	M.CAPACITOR	.033MF 5% 50V	
	CA130	QFN41HJ-273	M.CAPACITOR	.027MF 5% 50V	
	CA131	QFLC1HJ-104ZM	M.CAPACITOR	.10MF 5% 50V	
	CA132	QETC1HM-475ZN	E.CAPACITOR	4.7MF 20% 50V	
	CA133	QCBB1HK-221Y	C.CAPACITOR	220PF 10% 50V	
	CA134	QFN41HJ-123	M.CAPACITOR	.012MF 5% 50V	
	CA141	QCBB1HK-331Y	C.CAPACITOR	330PF 10% 50V	
	CA201	QCBB1HK-561Y	C.CAPACITOR	560PF 10% 50V	
	CA202	QCBB1HK-561Y	C.CAPACITOR	560PF 10% 50V	
	CA203	QEK61AM-107ZM	E.CAPACITOR	100MF 20% 10V	
	CA204	QFN41HJ-123	M.CAPACITOR	.012MF 5% 50V	
	CA205	QEK41HM-105	E.CAPACITOR	1.0MF 20% 50V	
	CA206	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	CA207	QFLC1HJ-183ZM	M.CAPACITOR	.018MF 5% 50V	
	CA221	QETC1HM-335ZN	E.CAPACITOR	3.3MF 20% 50V	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	CA226	QCS11HJ-220	C.CAPACITOR	22PF 5% 50V	
	CA227	QETC1AM-226ZN	E.CAPACITOR	22MF 20% 10V	
	CA228	QCXB1CM-682Y	C.CAPACITOR	6800PF 20% 16V	
	CA229	QFLC1HJ-333ZM	M.CAPACITOR	.033MF 5% 50V	
	CA230	QFN41HJ-273	M.CAPACITOR	.027MF 5% 50V	
	CA231	QFLC1HJ-104ZM	M.CAPACITOR	.10MF 5% 50V	
	CA232	QETC1HM-475ZN	E.CAPACITOR	4.7MF 20% 50V	
	CA233	QCBB1HK-221Y	C.CAPACITOR	220PF 10% 50V	
	CA234	QFN41HJ-123	M.CAPACITOR	.012MF 5% 50V	
	CA241	QCBB1HK-331Y	C.CAPACITOR	330PF 10% 50V	
	CA301	QEK61AM-107ZM	E.CAPACITOR	100MF 20% 10V	
	CA302	QEK41CM-476	E.CAPACITOR	47MF 20% 16V	
	CA304	QETC1HM-475ZN	E.CAPACITOR	4.7MF 20% 50V	
	CA315	QETC1CM-106ZN	E.CAPACITOR	10MF 20% 16V	
	CA321	QETC1AM-476ZN	E.CAPACITOR	47MF 20% 10V	
	CA322	QETC1AM-476ZN	E.CAPACITOR	47MF 20% 10V	
	CA323	QETC1AM-226ZN	E.CAPACITOR	22MF 20% 10V	
	CA324	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	CA341	QETC1CM-106ZN	E.CAPACITOR	10MF 20% 16V	
	CA342	QFLC1HJ-473ZM	M.CAPACITOR	.047MF 5% 50V	
	CA343	QFN41HJ-103	M.CAPACITOR	.010MF 5% 50V	
	CA344	QETC1HM-104ZN	E.CAPACITOR	.10MF 20% 50V	
	CA345	QFP32AJ-123ZM	PP.CAPACITOR	.012MF 5% 100V	
	CA346	QFN41HJ-222	M.CAPACITOR	2200PF 5% 50V	
	CA347	QFP31HJ-102ZM	PP.CAPACITOR	1000PF 5% 50V	
	CA348	QCC31EM-393ZV	C.CAPACITOR	.039MF 20% 25V	
	CA349	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	CA351	QFP31HJ-152ZM	PP.CAPACITOR	1500PF 5% 50V	
	CA352	QCVB1CN-103Y	C.CAPACITOR	.010MF 30% 16V	
	CA353	QFN81HJ-152	M.CAPACITOR	1500PF 5% 50V	
	CF 1	VCF2L3B-105	CERAMIC FILTER		
	CF 2	VCF2L3B-105	CERAMIC FILTER		
	CF 3	VCF1Z2Z-105Z	CERAMIC FILTER		
	CF 4	CSB456F18	CERA LOCK		
	CNA31	VMC0040-003	CONNECTOR		
	CNA32	VMC0040-007	CONNECTOR		
	CNA35	VMC0075-010N	CONNECTOR		
	CNA36	VMC0166-004Z	CONNECTOR		
	CN301	VMC0238-004Z	CONNECTOR	TEST-POINT	
	CN302	VMC0107-R05	SOCKET	TO CD	
	CN303	VMC0192-S09	CONNECTOR	TO U-COM	
	CN304	VMC0192-S09	CONNECTOR	TO U-COM	
	CN305	VMC0192-S09	CONNECTOR	TO U-COM	
	CN306	VMC0192-S09	CONNECTOR	TO U-COM	
	CT 14	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	CT 15	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	CT 17	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	D 1	KV1350NT	VARI.CAPACITOR		
	D 2	KV1350NT	VARI.CAPACITOR		
	D 3	KV1350NT	VARI.CAPACITOR		
	D 4	KV1350NT	VARI.CAPACITOR		
	D 5	1SS133	SI DIODE		
	D 6	1SS133	SI DIODE		
	D 7	1SS133	SI DIODE		
	D 8	KV1550NTA	VARI.CAPACITOR		

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	D 9	KV1550NTA	VARI.CAPACITOR		
	D 10	KV1550NTA	VARI.CAPACITOR		
	D 11	KV1550NTA	VARI.CAPACITOR		
	D 12	DSK10C-E	DIODE		
	D 13	DSK10C-E	DIODE		
	D 361	RD5.1JSAB1	ZENER DIODE		
	D 383	MTZ5.1JB	ZENER DIODE		
	D 384	1SS133	SI DIODE		
	D 391	1SS133	SI DIODE		
	D 392	1SS133	SI DIODE		
	D 901	MA4075(M)	ZENER DIODE		
	D 902	1SS133	SI DIODE		
	D 903	1SS133	SI DIODE		
	D 911	DSK10C-E	DIODE		
	D 921	RD5.6JSAB1	ZENER DIODE		
	D 922	1SS133	SI DIODE		
	D 991	1SS133	SI DIODE		
	D 995	1N5401M	SI DIODE		
⚠	D 996	1N5401M	SI DIODE		
⚠	D 997	1N5401M	SI DIODE		
⚠	D 998	1N5401M	SI DIODE		
⚠	D 999	1N5401M	SI DIODE		
	DA121	1SS133	SI DIODE		
	DA122	1SS133	SI DIODE		
	DA221	1SS133	SI DIODE		
	DA222	1SS133	SI DIODE		
	IC 1	TA7358P(N)	IC		
	IC 2	TA8132AN	IC		
	IC 3	TC9216P	IC		
	ICA31	LA3246	IC		
	ICA32	LA3220	IC		
	ICA33	BA3126N	IC		
	IC101	TA8229K	IC		
	IC321	VC4580L	IC		
	IC341	BA15218N	IC		
	IC361	CXA1792S	IC	E VOL	
	J 301	VMJ4024-001	JACK	PHONES	
	J 302	EMB90YV-401A	S.TERMIMAL	SPEAKER	
⚠	J 998	QMA431B-V01	DC JACK		E,EN
	J 999	QMC0263-004	AC SOCKET		
	L 1	VQF1B20-017	OSC COIL	FM OSC	
	L 2	VQF1B12-004	RF COIL	FM RF	
	L 3	VQB010B-511	BAR ANTENNA	MW LW RF	
	L 4	VQM7U02-404	OSC COIL(MW)	MW OSC	
	L 6	VQL7U02-502	OSC COIL(LW)	LW OSC	
	L 7	VQP025K-4R7Y	INDUCTOR		
	L 8	VQP0018-221	INDUCTOR		
	L 12	V03047-17	COIL	RF COIL	
	L 351	VQZ0048-009	INDUCTOR		
	LA341	VQH1009-026	OSC COIL		
	Q 1	2SC1923	TRANSISTOR		
	Q 3	2SC1923	TRANSISTOR		
	Q 4	2SA1175	TRANSISTOR		
	Q 5	2SC1923	TRANSISTOR		
	Q 6	2SC1923	TRANSISTOR		

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	Q 7	2SC1923	TRANSISTOR		
	Q 8	DTC114YS	TRANSISTOR		
	Q 9	DTA114YS	TRANSISTOR		
	Q 10	DTA114YS	TRANSISTOR		
	Q 11	DTA114YS	TRANSISTOR		
	Q 12	2SC2785	TRANSISTOR		
	Q 13	2SC2785	TRANSISTOR		
	Q 14	2SA1175	TRANSISTOR		
	Q 15	DTC124ES	TRANSISTOR		
	Q 153	2SC2001(L,K)	TRANSISTOR		
	Q 181	2SD1302	TRANSISTOR		
	Q 191	2SD1302	TRANSISTOR		
	Q 253	2SC2001(L,K)	TRANSISTOR		
	Q 281	2SD1302	TRANSISTOR		
	Q 291	2SD1302	TRANSISTOR		
	Q 381	2SA1175	TRANSISTOR		
	Q 391	DTC114YS	TRANSISTOR		
	Q 901	2SB772(Q,P)	TRANSISTOR		
	Q 902	2SC2785	TRANSISTOR		
	Q 903	2SC2785	TRANSISTOR		
	Q 904	2SC2785	TRANSISTOR		
	Q 911	2SA952(L,K)	TRANSISTOR		
	Q 921	2SB1274(R,S)	TRANSISTOR		
	Q 922	2SC2785	TRANSISTOR		
	Q 923	2SC2785	TRANSISTOR		
	Q 931	2SB562(C)	TRANSISTOR		
	Q 932	2SC2785	TRANSISTOR		
	Q 941	2SA952(L,K)	TRANSISTOR		
	Q 942	2SC2785	TRANSISTOR		
	Q 991	DTA144ES	TRANSISTOR		
	QA121	2SC2785	TRANSISTOR	HDUB EQ	
	QA122	2SC2785	TRANSISTOR	REC MUTE	
	QA221	2SC2785	TRANSISTOR	HDUB EQ	
	QA222	2SC2785	TRANSISTOR	REC MUTE	
	QA321	DTC114YS	TRANSISTOR	ALC SW	
	QA341	2SC945L(P,Q)	TRANSISTOR		
	QA342	2SC2001(L,K)	TRANSISTOR		
	QA343	2SC2785	TRANSISTOR		
	QA344	2SC2785	TRANSISTOR		
	QA345	2SC2785	TRANSISTOR		
	QA346	2SC2785	TRANSISTOR		
	QA351	DTC144ES	TRANSISTOR		
	QA352	2SC2785	TRANSISTOR		
	QA361	2SA1175	TRANSISTOR		
	QA362	DTC114YS	TRANSISTOR		
	R 1	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 2	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 3	QRD167J-4R7	CARBON RESISTOR	4.7 5% 1/6W	
	R 4	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 5	QRD161J-823	CARBON RESISTOR	82K 5% 1/6W	
	R 6	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 8	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 9	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 10	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 12	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 13	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 14	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 15	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 16	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 17	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 18	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 19	QRD161J-222	CARBON RESISTOR	(B40)	
	R 20	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 21	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 22	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 23	QRD161J-564	CARBON RESISTOR	560K 5% 1/6W	
	R 24	QRD161J-331	CARBON RESISTOE	330 5% 1/6W	
	R 25	QRD161J-334	CARBON RESISTOR	330K 5% 1/6W	
	R 27	QRD161J-331	CARBON RESISTOE	330 5% 1/6W	
	R 29	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 30	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 31	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
	R 32	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 34	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 35	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 36	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 37	QRD161J-560	CARBON RESISTOR	56 5% 1/6W	
	R 40	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 41	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 42	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 43	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 44	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 45	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 47	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 48	QRD161J-331	CARBON RESISTOE	330 5% 1/6W	
	R 49	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 51	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 52	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 53	QRD161J-471	CARBON RESISTOR	470 5% 1/6W	
	R 54	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 55	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 56	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 57	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 58	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 101	QRD161J-331	CARBON RESISTOE	330 5% 1/6W	
	R 102	QRD161J-2R2	CARBON RESISTOR	2.2 5% 1/6W	
	R 103	QRD167J-121	CARBON RESISTOR	120 5% 1/6W	
	R 104	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 121	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 122	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 123	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
	R 124	QRD161J-334	CARBON RESISTOR	330K 5% 1/6W	
	R 141	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 142	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 143	QRD161J-393	CARBON RESISTOR	39K 5% 1/6W	
	R 146	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 151	QRD161J-363	CARBON RESISTOR	36K 5% 1/6W	
	R 152	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
	R 153	QRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
	R 155	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 157	QRD167J-682	CARBON RESISTOR	6.8K 5% 1/6W	
	R 158	QRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
	R 161	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 181	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 191	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 192	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 193	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 194	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
	R 196	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 201	QRD161J-331	CARBON RESISTOE	330 5% 1/6W	
	R 202	QRD161J-2R2	CARBON RESISTOR	2.2 5% 1/6W	
	R 203	QRD167J-121	CARBON RESISTOR	120 5% 1/6W	
	R 204	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 221	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 222	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 223	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
	R 224	QRD161J-334	CARBON RESISTOR	330K 5% 1/6W	
	R 241	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 242	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 243	QRD161J-393	CARBON RESISTOR	39K 5% 1/6W	
	R 246	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 251	QRD161J-363	CARBON RESISTOR	36K 5% 1/6W	
	R 252	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
	R 253	QRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
	R 255	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
	R 257	QRD167J-682	CARBON RESISTOR	6.8K 5% 1/6W	
	R 258	QRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
	R 261	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 281	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 291	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 292	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 293	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 294	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
	R 296	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 321	QRD161J-221	CARBON RESISTOR	220 5% 1/6W	
	R 322	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 323	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 341	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 342	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 343	QRD161J-221	CARBON RESISTOR	220 5% 1/6W	
	R 364	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 365	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 366	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 367	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 368	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 369	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 370	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 371	QRD161J-560	CARBON RESISTOR	56 5% 1/6W	
	R 372	QRD161J-164YT	CARBON RESISTOR	160K 5% 1/6W	
	R 383	QRD167J-682	CARBON RESISTOR	6.8K 5% 1/6W	
	R 384	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 391	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 392	QRD161J-181	CARBON RESISTOR	180 5% 1/6W	
	R 393	QRD161J-474	CARBON RESISTOR	470K 5% 1/6W	
	R 901	QRD161J-471	CARBON RESISTOR	470 5% 1/6W	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 902	QRD161J-564	CARBON RESISTOR	560K 5% 1/6W	
	R 903	QRD161J-471	CARBON RESISTOR	470 5% 1/6W	
	R 904	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 905	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 906	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 907	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 908	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 909	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 910	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 911	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
	R 912	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 921	QRD161J-271	CARBON RESISTOR	270 5% 1/6W	
	R 923	QRD161J-471	CARBON RESISTOR	470 5% 1/6W	
	R 924	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
	R 925	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
	R 926	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 927	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
	R 928	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
	R 931	QRD161J-391	CARBON RESISTOR	390 5% 1/6W	
	R 932	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 933	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W	
	R 934	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 941	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W	
	R 942	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 943	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 944	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 991	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	RA103	QRD161J-560	CARBON RESISTOR	56 5% 1/6W	
	RA104	QRD161J-123	CARBON RESISTOR	12K 5% 1/6W	
	RA105	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
	RA106	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	RA107	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
	RA108	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
	RA111	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	RA121	QRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
	RA122	QRD161J-823	CARBON RESISTOR	82K 5% 1/6W	
	RA123	QRD161J-681	CARBON RESISTOR	680 5% 1/6W	
	RA124	QRD161J-821	CARBON RESISTOR	820 5% 1/6W	
	RA125	QRD161J-560	CARBON RESISTOR	56 5% 1/6W	
	RA126	QRD161J-561	CARBON RESISTOR	560 5% 1/6W	
	RA127	QRD161J-820	CARBON RESISTOR	82 5% 1/6W	
	RA128	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	RA129	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	RA130	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	RA131	QRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W	
	RA132	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
	RA133	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	RA141	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	RA203	QRD161J-560	CARBON RESISTOR	56 5% 1/6W	
	RA204	QRD161J-123	CARBON RESISTOR	12K 5% 1/6W	
	RA205	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
	RA206	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	RA207	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
	RA208	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
	RA211	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	RA221	QRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
	RA222	QRD161J-823	CARBON RESISTOR	82K 5% 1/6W	
	RA223	QRD161J-681	CARBON RESISTOR	680 5% 1/6W	
	RA224	QRD161J-821	CARBON RESISTOR	820 5% 1/6W	
	RA225	QRD161J-560	CARBON RESISTOR	56 5% 1/6W	
	RA226	QRD161J-561	CARBON RESISTOR	560 5% 1/6W	
	RA227	QRD161J-820	CARBON RESISTOR	82 5% 1/6W	
	RA228	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	RA229	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	RA230	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	RA231	QRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W	
	RA232	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
	RA233	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	RA241	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	RA301	QRD161J-331	CARBON RESISTOE	330 5% 1/6W	
	RA302	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	RA303	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
	RA305	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	RA306	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	RA307	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
	RA315	QRD161J-221	CARBON RESISTOR	220 5% 1/6W	
	RA317	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W	
	RA321	QRD167J-121	CARBON RESISTOR	120 5% 1/6W	
	RA322	QRD161J-475	CARBON RESISTOR	4.7M 5% 1/6W	
	RA323	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	RA327	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	RA341	QRD14CJ-470SX	CARBON RESISTOR	47 5% 1/4W	
	RA342	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	RA343	QRD161J-3R9	CARBON RESISTOR	3.9 5% 1/6W	
	RA344	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
	RA345	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	RA347	QRD161J-123	CARBON RESISTOR	12K 5% 1/6W	
	RA348	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	RA350	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
	RA351	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	RA352	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	RA353	QRD161J-394	CARBON RESISTOR	390K 5% 1/6W	
	RA354	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	RA361	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W	
	RA363	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	RE 1	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	RE 2	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	RE 3	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	RT 9	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	RT 01	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	RT 02	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	RT 03	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	RT 04	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	RT 05	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	RT 06	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	RT 07	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	T 1	VQT7F12-110	IFT	FM IF	
	T 2	VQT7A21-107	IFT		
	TC 2	QAT3722-300ZM	T.CAPACITOR	MW RF	
	TC 3	QAT3722-300ZM	T.CAPACITOR	LW RF	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	TP 1	VMZ0015-002	POST PIN	TO ROD ANT	
	VRA41	QVZ3523-203AZ	V.RESISTOR		
	VRA61	QVZ3523-102AZ	V.RESISTOR		
	X 1	V472124-A0	CRYSTAL		

• CD Amplifier P.C. Board

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 501	QCBB1HK-821Y	C.CAPACITOR	820PF 10% 50V	
	C 503	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V	
	C 504	QETC1CM-106ZN	E.CAPACITOR	10MF 20% 16V	
	C 511	QCSB1HJ-3R9	C.CAPACITOR	3.9PF 10% 50V	
	C 512	QCS11HJ-270	C.CAPACITOR	27PF 5% 50V	
	C 513	QFLC1HJ-104ZM	M.CAPACITOR	.10MF 5% 50V	
	C 514	QFN41HJ-472	M CAPACITOR	4700PF 5% 50V	
	C 521	QCBB1HK-331Y	C.CAPACITOR	330PF 10% 50V	
	C 522	QFLC1HJ-473ZM	M.CAPACITOR	.047MF 5% 50V	
	C 523	QFV81HJ-154	FILM CAPACITOR	.15MF 5% 50V	
	C 524	QEN61ER-475ZN	NP.E.CAPACITOR	4.7MF +30:-10%	
	C 529	QETC1AM-336ZN	E.CAPACITOR	33MF 20% 10V	
	C 531	QCVB1CM-822Y	C.CAPACITOR	8200PF 20% 16V	
	C 541	QCBB1HK-101Y	C.CAPACITOR	100PF 10% 50V	
	C 542	QFLC1HJ-103ZM	M.CAPACITOR	.010MF 5% 50V	
	C 543	QFLC1HJ-393ZM	M.CAPACITOR	.039MF 5% 50V	
	C 545	QEN61HM-105Z	NP.E.CAPACITOR	1.0MF 20% 50V	
	C 546	QFLC1HJ-223ZM	M.CAPACITOR	.022MF 5% 50V	
	C 561	QETC1AM-476ZN	E.CAPACITOR	47MF 20% 10V	
	C 562	QETC1HM-475ZN	E.CAPACITOR	4.7MF 20% 50V	
	C 581	QETC1AM-477ZN	E.CAPACITOR	470MF 20% 10V	
	C 582	QETC1AM-107ZN	E.CAPACITOR	100MF 20% 10V	
	C 591	VCP0012-105Z	C.CAPACITOR		
	C 592	VCP0012-105Z	C.CAPACITOR		
	C 593	QCC11EM-104V	C.CAPACITOR	.10MF 20% 25V	
	C 599	QETC1AM-107ZN	E.CAPACITOR	100MF 20% 10V	
	C 601	QCS11HJ-330	C.CAPACITOR	FOR CRYSTAL	
	C 602	QCS11HJ-330	C.CAPACITOR	FOR CRYSTAL	
	C 603	QCC11EM-473V	C.CAPACITOR	.047MF 20% 25V	
	C 604	QCC11EM-104V	C.CAPACITOR	.10MF 20% 25V	
	C 605	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V	
	C 606	QCC11EM-473V	C.CAPACITOR	.047MF 20% 25V	
	C 611	QCS11HJ-101	C.CAPACITOR	100PF 5% 50V	
	C 612	QFLC1HJ-103ZM	M.CAPACITOR	.010MF 5% 50V	
	C 613	QFLC1HJ-103ZM	M.CAPACITOR	.010MF 5% 50V	
	C 614	QFN41HJ-332	M CAPACITOR	3300PF 5% 50V	
	C 615	QFN41HJ-332	M CAPACITOR	3300PF 5% 50V	
	C 631	QCC11EM-473V	C.CAPACITOR	.047MF 20% 25V	
	C 632	QETC1AM-227ZN	E.CAPACITOR	220MF 20% 10V	
	C 651	QETC1AM-107ZN	E.CAPACITOR	100MF 20% 10V	
	C 652	QETC1CM-226ZN	E.CAPACITOR	22MF 20% 16V	
	C 661	QETC1HM-475ZN	E.CAPACITOR	4.7MF 20% 50V	
	C 662	QCXB1CM-472Y	C.CAPACITOR	4700PF 20% 16V	
	C 663	QCVB1CM-822Y	C.CAPACITOR	8200PF 20% 16V	
	C 664	QCBB1HK-820Y	C.CAPACITOR	82PF 10% 50V	
	C 665	QETC1EM-335ZN	E.CAPACITOR	3.3MF 20% 25V	
	C 666	QCC11EM-123V	C.CAPACITOR	.012MF 20% 25V	
	C 671	QETC1HM-475ZN	E.CAPACITOR	4.7MF 20% 50V	
	C 672	QCXB1CM-472Y	C.CAPACITOR	4700PF 20% 16V	
	C 673	QCVB1CM-822Y	C.CAPACITOR	8200PF 20% 16V	
	C 674	QCBB1HK-820Y	C.CAPACITOR	82PF 10% 50V	
	C 675	QETC1EM-335ZN	E.CAPACITOR	3.3MF 20% 25V	
	C 676	QCC11EM-123V	C.CAPACITOR	.012MF 20% 25V	
	CN501	VMC0272-015	CONNECTOR	TO PICK UP	
	CN601	VMC0163-011	CONNECTOR	TO CPU	

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	IC501	TA8191F	IC	SERVO LSI	
	IC502	BA6298FP	IC	POWER DRIVER	
	IC601	TC9236AF	IC	1 CHIP PROCESSE	
	IC603	TDA1311A	IC	D/A CONVERTER	
	IC604	BA15218N	IC	L.P.F	
	Q 501	2SA952(L,K)	TRANSISTOR		
	Q 581	2SA952(L,K)	TRANSISTOR	5V REGULATOR	
	Q 591	2SA1309(RS)	TRANSISTOR		
	Q 651	DTA114TS	TRANSISTOR		
	Q 661	DTC114TS	TRANSISTOR		
	Q 671	DTC114TS	TRANSISTOR		
	R 501	QRD161J-124	CARBON RESISTOR	120K 5% 1/6W	
	R 502	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 504	QRD161J-202	CARBON RESISTOR	2.0K 5% 1/6W	
	R 505	QRD161J-220	CARBON RESISTOR	22 5% 1/6W	
	R 506	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 511	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
	R 512	QRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W	
	R 513	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 514	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 515	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 516	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 517	QRD161J-202	CARBON RESISTOR	2.0K 5% 1/6W	
	R 521	QRD161J-154	CARBON RESISTOR	150K 5% 1/6W	
	R 522	QRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W	
	R 523	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 524	QRD161J-331	CARBON RESISTOE	330 5% 1/6W	
	R 525	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 529	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	R 531	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 532	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 533	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
	R 541	QRD161J-123	CARBON RESISTOR	12K 5% 1/6W	
	R 542	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 543	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 544	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 545	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 548	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
	R 549	QRD161J-821	CARBON RESISTOR	820 5% 1/6W	
	R 550	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 551	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 552	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	R 553	QRD161J-821	CARBON RESISTOR	820 5% 1/6W	
	R 555	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 559	QRD161J-125	CARBON RESISTOR	1.2M 5% 1/6W	
	R 561	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	R 562	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 563	QRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W	
	R 564	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 565	QRD161J-683	CARBON RESISTOR	68K 5% 1/6W	
	R 566	QRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
	R 583	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 591	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 611	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 612	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 613	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
	R 614	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 615	QRD161J-225	CARBON RESISTOR	2.2M 5% 1/6W	
	R 616	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
	R 631	QRD161J-820	CARBON RESISTOR	82 5% 1/6W	
	R 638	QRD161J-331	CARBON RESISTOE	330 5% 1/6W	
	R 639	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 641	QRD161J-473	CARBON RESISTOR	REST SW PULL UP	
	R 651	QRD161J-820	CARBON RESISTOR	82 5% 1/6W	
	R 652	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 653	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 661	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 662	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	R 663	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 664	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 665	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 667	QRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W	
	R 671	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 672	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	R 673	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 674	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 675	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 677	QRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W	
	VR501	QVZ3523-154AZ	V.RESISTOR	TR OFFSET ADJ.	
	X 601	CSA8.46MT	CERAMIC RESONA	8.46MHZ	

• System Micro Computer P.C. Board

BLOCK NO. 03□□□□□

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 701	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V	
	C 702	QEK41HM-105	E.CAPACITOR	1.0MF 20% 50V	
	C 703	QEK41HM-105	E.CAPACITOR	1.0MF 20% 50V	
	C 704	QEK41HM-105	E.CAPACITOR	1.0MF 20% 50V	
	C 705	QEK41HM-105	E.CAPACITOR	1.0MF 20% 50V	
	C 802	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V	
	C 803	QCT30CH-150Y	C.CAPACITOR	15PF 5% 50V	
	C 804	QCT30CH-150Y	C.CAPACITOR	15PF 5% 50V	
	C 807	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	C 808	QCT30CH-150Y	C.CAPACITOR	15PF 5% 50V	
	C 809	QCT30CH-150Y	C.CAPACITOR	15PF 5% 50V	
	C 811	QEK61AM-107ZM	E.CAPACITOR	100MF 20% 10V	
	C 814	QEK41CM-476	E.CAPACITOR	47MF 20% 16V	
	C 815	QEK41HM-105	E.CAPACITOR	1.0MF 20% 50V	
	C 816	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V	
	CA801	VCR0024-001	C NETWORK		
	CM 02	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	CM 03	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	CM 04	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
	CM 07	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V	
	CM 08	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V	
	CM 09	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V	
	CM 11	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	CM 12	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	CM 15	QCT30CH-150Y	C.CAPACITOR	15PF 5% 50V	
	CM 16	QCT30CH-150Y	C.CAPACITOR	15PF 5% 50V	
	CM 17	QCT25CH-510Z	C.CAPACITOR	51PF 5% 50V	
	CM 18	QCT25CH-510Z	C.CAPACITOR	51PF 5% 50V	
	CM 19	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
	CM 20	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V	
	CM 21	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	CM 22	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	CM 23	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	CM 31	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	CM 32	QCBB1HK-151Y	C.CAPACITOR	150PF 10% 50V	
	CM 87	QEK41CM-226	E.CAPACITOR	22MF 20% 16V	
	CM 98	QETC1AM-477ZN	E.CAPACITOR	470MF 20% 10V	
	CM 99	QETA1AM-477N	E.CAPACITOR	470MF 20% 10V	
	CN801	VMC0192-P09	CONNECTOR	MAIN	
	CN802	VMC0192-P09	CONNECTOR	MAIN	
	CN803	VMC0192-P09	CONNECTOR	MAIN	
	CN804	VMC0192-P09	CONNECTOR	MAIN	
	CN805	VMC0163-R11	CONNECTOR	CD	
	CN806	VMC0308-R02	CONNECTOR		
	D 801	MA719	S.B.DIODE		
	D 802	1SS133	SI DIODE		
	D 803	1SS133	SI DIODE		
	D 804	1SS133	SI DIODE		
	D 805	1SS133	SI DIODE		
	D 806	1SS133	SI DIODE		
	D 807	MTZ3.6JB	ZENER DIODE		
	D 808	1SS133	SI DIODE		
	D 811	SLR-34MGF42	LED	POWER(GREEN)	
	D 812	SLR-34VC3F	LED		
	D 814	SLR-305VCA47	L.E.D.		

BLOCK NO. 03□□□□□

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	DM 01	1SS133	SI DIODE		
	DM 02	1SS133	SI DIODE		
	DM 03	1SS133	SI DIODE		
	DM 04	1SS133	SI DIODE		
	DM 05	1SS133	SI DIODE		
	DM 06	1SS133	SI DIODE		
	DM 07	1SS133	SI DIODE		
	DM 08	MA723	SI DIODE		
	IC701	BA10324	IC		
	IC801	MN1871610JCX2	IC	U-COM	
	IC802	PST529C	IC	B-UP	
	IC803	PST529H-T	IC	RESET	
	IC804	SPS-420-1	RM SENSOR	RM	
	L 801	VQP0028-100Z	INDUCTOR		
	L 802	VQP0018-4R7	INDUCTOR		
	L 803	VQZ0048-009	INDUCTOR		
	LCD81	VGL1148-001	LCD		
	LM 01	VQP0018-4R7	INDUCTOR		
	LM 02	VQP0018-4R7	INDUCTOR		
	Q 801	2SC945L(P,Q)	TRANSISTOR		
	Q 802	2SC945L(P,Q)	TRANSISTOR		
	Q 803	2SA952(L,K)	TRANSISTOR		
	Q 804	DTC114YS	TRANSISTOR		
	Q 805	DTC114YS	TRANSISTOR		
	Q 806	DTC114YS	TRANSISTOR		
	R 701	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	R 702	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	R 703	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	R 704	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	R 711	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 713	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 714	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 716	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 717	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 718	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 722	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 724	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
	R 801	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 802	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 803	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 804	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 805	QRD161J-681	CARBON RESISTOR	680 5% 1/6W	
	R 806	QRD161J-681	CARBON RESISTOR	680 5% 1/6W	
	R 807	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 808	QRD161J-271	CARBON RESISTOR	270 5% 1/6W	
	R 811	QRD161J-683	CARBON RESISTOR	68K 5% 1/6W	
	R 813	QRD161J-221	CARBON RESISTOR	220 5% 1/6W	
	R 815	QRD167J-682	CARBON RESISTOR	6.8K 5% 1/6W	
	R 816	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 817	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 818	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
	R 819	QRD161J-683	CARBON RESISTOR	68K 5% 1/6W	
	R 820	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 821	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 822	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 823	QRD161J-683	CARBON RESISTOR	68K 5% 1/6W	
	R 824	QRD167J-682	CARBON RESISTOR	6.8K 5% 1/6W	
	R 825	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	R 826	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
	R 827	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
	R 828	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 829	QRD161J-823	CARBON RESISTOR	82K 5% 1/6W	
	R 831	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 832	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 833	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 834	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 835	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 836	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 837	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 838	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 839	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 840	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 841	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 842	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 843	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 844	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 845	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 846	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 847	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 848	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 849	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 850	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 851	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 852	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 853	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 854	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 855	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 856	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 858	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 859	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 860	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 861	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 862	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 863	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 864	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 865	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 866	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 867	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 868	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 869	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 870	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 871	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 872	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 873	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 874	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 875	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 876	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 877	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 878	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 879	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 880	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 881	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 882	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 883	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 884	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 885	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 886	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 887	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 889	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 890	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 891	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 892	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 893	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 896	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 897	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 898	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	RM 01	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	RM 02	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	RM 03	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	RM 04	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	RM 05	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	RM 06	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	RM 08	QRD161J-474	CARBON RESISTOR	470K 5% 1/6W	
	RM 09	QRD161J-474	CARBON RESISTOR	470K 5% 1/6W	
	RM 10	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W	
	RM 11	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	RM 12	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
	RM 15	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	RM 16	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	RM 17	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	RM 87	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	S 801	QSQ4H11-V02Z	TACT SWITCH	POWER	
	S 802	QSQ4H11-V02Z	TACT SWITCH	FB	
	S 803	QSQ4H11-V02Z	TACT SWITCH	FF	
	S 804	QSQ4H11-V02Z	TACT SWITCH	STOP/CLEAR	
	S 805	QSQ4H11-V02Z	TACT SWITCH	PLAY/PAUSE	
	S 806	QSQ4H11-V02Z	TACT SWITCH	DOWN	
	S 807	QSQ4H11-V02Z	TACT SWITCH	UP	
	S 808	QSQ4H11-V02Z	TACT SWITCH	P.SCAN	
	S 809	QSQ4H11-V02Z	TACT SWITCH	TUNER/BAND	
	S 810	QSQ4H11-V02Z	TACT SWITCH	VOL-DOWN	
	S 811	QSQ4H11-V02Z	TACT SWITCH	VOL-UP	
	S 812	QSQ4H11-V02Z	TACT SWITCH	HDUB	
	S 813	QSQ4H11-V02Z	TACT SWITCH	NORM/METAL	
	S 814	QSQ4H11-V02Z	TACT SWITCH	FREQ	
	S 815	QSQ4H11-V02Z	TACT SWITCH	AHB	
	S 816	VSH1153-001	SWITCH	CLOSE	
	X 801	CSA8.00MTZ226-T	CERA LOCK		
	X 802	VCX5000-002	CRYSTAL		

15. Illustration of Packing and Parts List

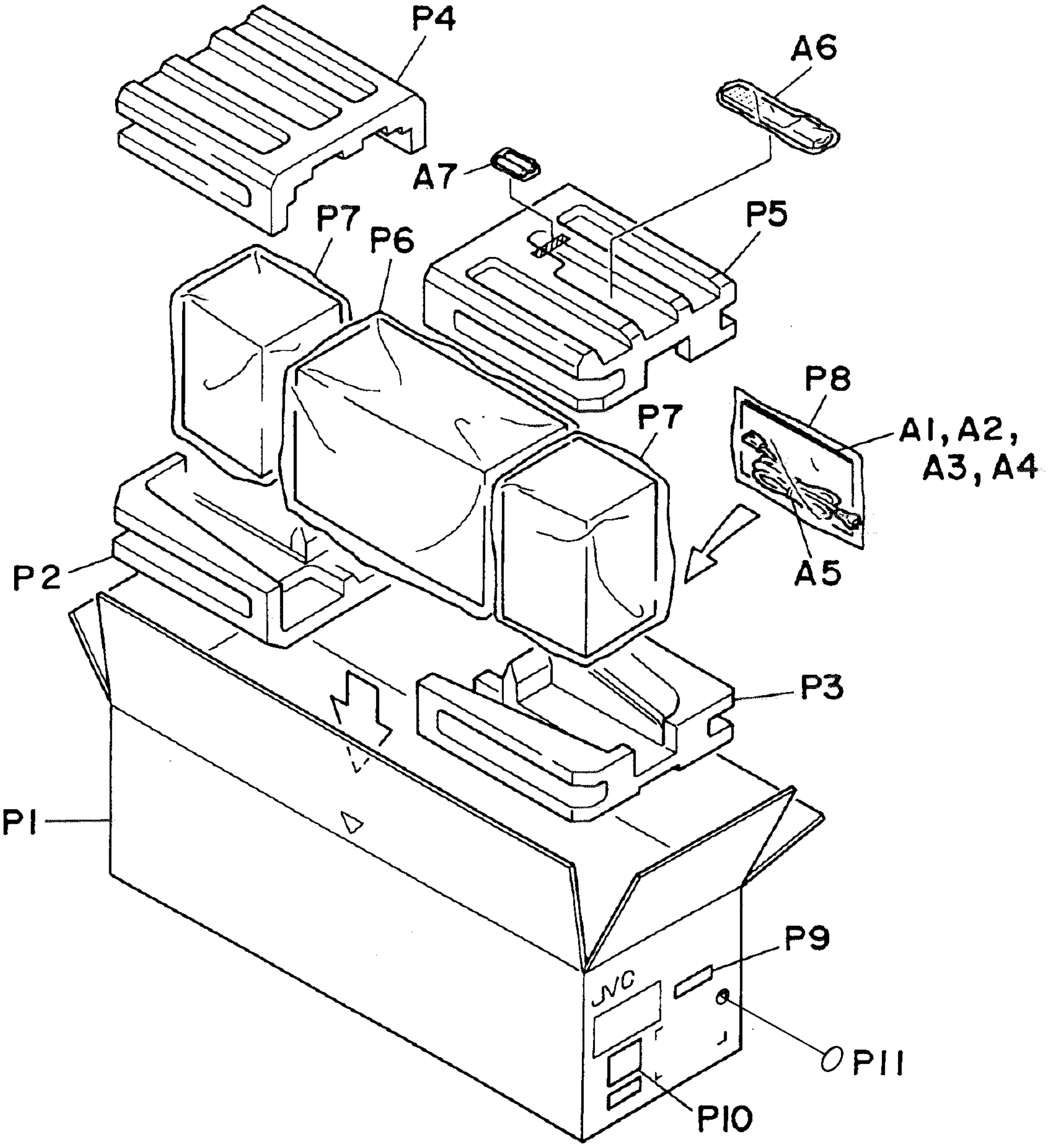


Fig. 15-1

Packing parts list

BLOCK NO. M5MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	P 1	VPC7063-001	CARTON		1		
	P 2	VPH1640-001	CUSHION(BOTT.L)		1		
	P 3	VPH1640-002	CUSHION(BOTT.R)		1		
	P 4	VPH1641-001	CUSHION(UP.L)		1		
	P 5	VPH1641-002	CUSHION(UP.R)		1		
	P 6	E300196-031B	ENVELOPE	FOR SET	1		
	P 7	VPE3020-018	POLY BAG	400X450:SPEAKER	2		
	P 8	VPE3005-007	POLY BAG	INSTRUCTIONS	1		
	P 9	VND3025-204	EAN CODE LABEL		1		
	P 10	VND3044-001	NUMBER LABEL		1	GI,EN	
		VND3044-003	NUMBER LABEL		1	E	
		VND3044-004	NUMBER LABEL		1	B	
		VND3044-005	NUMBER LABEL		1	G	
	P 11	QZLA001-011	MARK		1		

16. Accessories

BLOCK NO. M6MM□□□□

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A 1	VNN7063-271M	INSTRUCTIONS		1	EN	
		VNN7063-251M	INSTRUCTIONS		1	B,GI	
		VNN7063-261M	INSTRUCTIONS		1	E,G,EN	
	A 2	BT-20066A	WARRANTY CARD		1	B,G	
		BT-20135	WARRANTY CARD		1	G	
	A 3	BT20060	WARRANTY CARD		1	B	
		QZL1008-001	INFORMAT.SHEET		1	G	
	A 4	E43486-340B	SAFETY SHEET		1	B	
⚠	A 5	QMP39F0-183	POWER CORD		1	E,G,GI,EN	
⚠		QMP5520-183BS	POWER CORD		1	B	
	A 6	VGR0027-001	REMOCON	RX-RX110	1		
	A 7	UM-3(DJ)-2PSA	BATTERY	FOR REMOCON	2		

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